

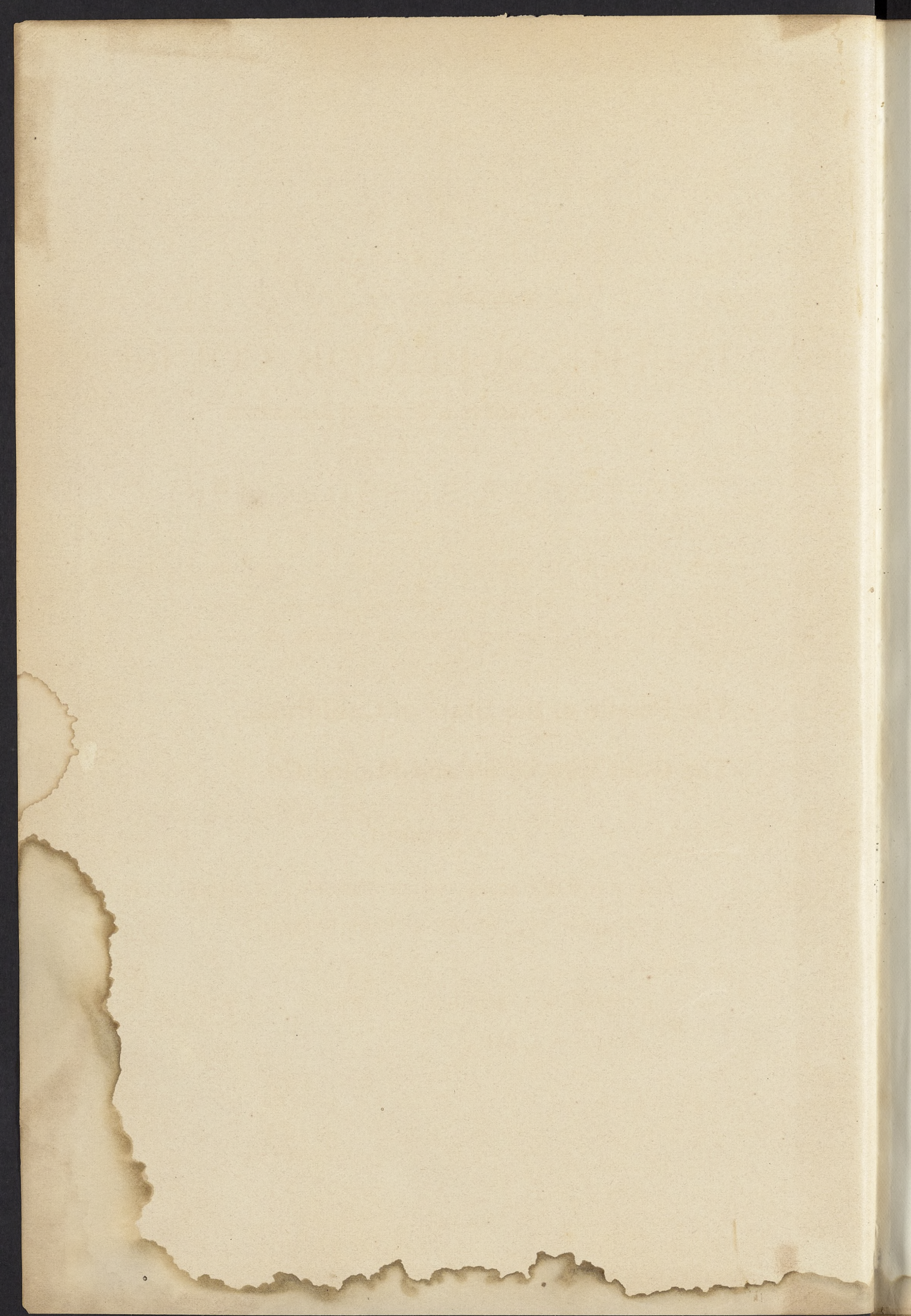
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VOLUME 7

IN THE SUPERIOR COURT,

State of California, County of Sacramento.

OCTOBER SESSION, 1881.

HON. JACKSON TEMPLE, - - - - - PRESIDING JUDGE.

WINFIELD J. DAVIS, OFFICIAL REPORTER.

SAMUEL OSBOURNE AND WILLIAM M. CUTTER, REPORTERS.

The People of the State of California, }
vs. }
The Gold Run Ditch and Mining Co. }

COUNSEL:

For Plaintiff,

HON. A. L. HART, Attorney General, GEORGE CADWALADER, ISAAC S.
BELCHER, A. L. RHODES, RICHARD BAYNE.

For Defendant,

J. K. BYRNE, W. C. BELCHER, S. M. WILSON, W. T. WALLACE, A. B.
DIBBLE, A. P. CATLIN.

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In the Superior Court
of the State of California
in and for the County of
Sacramento.

The People of the State of California	} Morning Session Monday Nov. 28 th /81
^{v.s.} The Gold Run Ditch and Mining Company	

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Wm. Field J. Davis
Official Reporter

In the Superior Court of
the State of California in
and for the County of Sacramento

The People of the State of California vs.	} Morning Session Monday November 28 th /81
The Gold Run Ditch and Mining Company	

Testimony
of
W. F. Knox

Called for Plaintiff, From,

Mr. Hart- How long have you lived
in Sacramento City?

A- I have lived there since
February 1850.

Q- How long have you lived in
this State?

A. Since the first of September
1849.

Q Have you lived continuously
in the State since that-time?

A. Yes. With the exception of two visits East, of a few months.

Q. When did you first see the American river?

A. I first saw it in September 1849.

Q. At what point?

A. I crossed it here where the Bridge is now, this 12th Street Bridge, called Lisle's Bridge then I believe.

Q. Where did the bridge extend from and to at that time?

A. I do not think there was any bridge at that time. There was a ford; we forded it.

Q. How long after that was it before the bridge was constructed?

A. I can not say.

Q. What was the condition of the water in the river at the time you saw it in 1849?

A. It was clear.

Q. Was it very clear?

A. Ah yes it was very clear, like a mountain stream; with a gravelly bottom, ~~and~~ pebbly.

gravely bottom.

Q. How deep was the river at the place where you crossed it?

A. I can remember exactly; we forded it with horses and wagons very readily. It was two or three feet deep I should think.

Q. What was the character of the pebbles at the bottom?

A. It was small gravel.

Q. And sand.

A. Yes, I presume so; I do not remember. Of course there would be sand.

Q. A pebbly bottom I suppose.

A. Yes.

Q. What kind of banks did the river have at that time?

A. There were perpendicular banks on one side and a bar was on the other.

Q. How high were those banks?

A. I should think they were from 15 to 20 feet above low water; above the water at that time, it was low water.

Q What kind of a bottom did the river have.

A. It was a firm solid bottom

Q Level?

A. Yes, comparatively so.

Q Have you ever constructed any improvements on the banks of the American river?

A. I built two buildings in the fall of 1851 on the bank of the American river at a place now known as Rabble's Damney.

Q What was it called then?

A. It was 28th street; a ferry.

Q Did it have any name at that time - that place?

A. It was called Hoyt's ferry.

Q How far was it from Sutter's Ambarkadero?

A. Well it was, the nearest point and was called by the old residents Sutter's Ambarkadero at that time.

Q How high were the banks

at that place?

A well they were fully as high as they were at the other place. I should think fifteen to twenty feet.

Q How long did the banks remain in that condition?

A Well I do not remember of my attention being called to it until after the flood of 1861-2.

Q Your attention was not called to the banks or the condition of the river?

A No. Notwithstanding I saw it often.

Q When did you notice, if you remember, that the water of the American river commenced getting muddy?

A I have no recollection until that time, until 1861-2.

Q When, if at any time, did you first notice that there was a change in the bed of the river so far as the bed of the river was concerned?

A. Well, at that time after the flood of 1861-2, I was appointed a levee commissioner and then my attention was called to the condition of the river.

Q. How long did you continue to be levee commissioner?

A. Well I think two or three years; I can not remember exactly.

Q. Levee commissioner for the City of Sacramento?

A. Yes. It was ^{at} the time the present system of levees was constructed.

Q. What change did you notice in 1862?

A. I noticed that a large deposit of sediment had been made, not only in the river but all over where the water had overflowed, all over the city.

Q. What was the character of that sediment?

A. It was fine clay and sand, fine clay and sand mixed

7-D.

Q. What was the color of the Clay?

A. It was a yellow color.

Q. Anything like the soil on the banks of the river?

A. No, the soil on the banks of the river was black dark soil.

Q. Did you ever see anything that looked like the clay that you saw there?

A. I have seen it on up the river towards the mountains.

Q. How is that?

A. I have see the same material along up the river.

Q. Since that time?

A. Yes, since that time.

Q. But before that time did you?

A. I do not think I had. My attention had ^{never} ~~not~~ been called to it.

Q. Where up the river have you seen it since that time?

A. I have seen it along up the American river

Q Where it had been deposited?

A Yes. Except it was coarser. The further up you go the coarser it is.

Q How much change was there made in the bed of the river in the winter of 1862?

A I cannot state positively. But I should think it was filled up several feet.

Q How many would you judge?

A Well five or six feet I would say.

Q How far up did you notice that this deposite was made in the bed of the river in 1862?

A As far up as our levees extend; that is up about five or six miles.

Q That is as far up as you went?

A That is as far up as I went, or had any need to go at that time.

Q Have you noticed any changes since that time?

9- Q.

Q. I have noticed that it has been constantly filling up every year, every freshet.

Q. What with?

A. With that same material for awhile. Now it is sand coarser material.

Q. After the flood of 1862 what kind of levees did you construct along the city?

A. We constructed levees four feet high. The height of the levees was established at four feet above ^{the} high water of 1862, which was twenty four feet our gauge.

Q. Do you know what the rain fall was in 1862?

A. I do not remember.

Q. Do you remember whether it was an excessively wet season?

A. ~~It~~ I think it was. Yes, it was.

Q. You say this levee was four feet higher than the high water of 1862?

A. Yes

Q. State whether or not that has been sufficient to protect the city from the overflow since that time?

A. No. In 1867-'8 the water came just to the top of that levee on the American river. It was then built five feet above that.

Q. That was in 1867-'8?

A. '67-'68. After the winter of '67-'8.

Q. How high was the water in 1862?

A. It was twenty four feet on the gauge.

Q. Above low water?

A. Above low water.

Q. In 1867-'8 you built it five feet higher, has that protected the city since?

A. Yes. That was on the American river, commencing on the northern part of the city extending up to Brighton.

Q. You say that has been sufficient to protect the city?

A. Yes.

11-D

Q- How near has the water come to the top of that levee?

A- I do not think it has ever been as high since as it was in 1867-8.

Q- How much has the channel of the American river been filled up since 1862?

A- at this point I speak of where I built those houses, it has filled ^{up} I think to the top of the original bank.

Q- That is 15 feet?

A- I should ^{say} fifteen feet, yes.

Q- Where were you residing with reference to the American river in 1837-2?

A- I was in this city.

Q- How far from the North levee of the city?

A- In 1837-'2 did you say?

Q- Yes.

A- I was living not far from where this building stands, at that time.

Mr Cadwalader - What time was that?

A- '37-'2

Q. You were then living not far from where this Courthouse stands

A. Yes.

Q. How long did you continue to reside there?

A. Until after the flood of 1862.

Q. Do you know whether or not any boats ever ran up the American river?

A. I never saw but one boat on the American river. That was in the Spring of 1862 after the flood or during the flood of 1862.

Q. You saw boats running up there then?

A. There was a boat that I went on up as far as the head of Burns' Slough which was on our way to Brighton then to or Hoboken or some point on the American river.

Q. What boat was that?

A. I cannot remember her name.

Q. State, if you know what the effect upon the bed of the American river is of the first flood usually

A. It scours it out for a few miles above its mouth. It almost always comes down before the Sacramento rises; consequently it has a fall sufficient to scour out the sand the last few miles of its length.

Q. Do you know what the fall of the American river is along for the first few miles above the city?

A. I do not know what it is now. I was 17 feet, said to be by the Engineer at the time he constructed these levees in 1862,

Q. Seventeen feet from what?

A. ~~Seventeen~~ Seventeen feet from the upper point of our levee which would be about five miles.

Mr. Caldwell - To where?

A. To the mouth; to its then mouth. The mouth has been changed since that time.

Mr. Hart - It is a shorter distance now than it was then?

A. Yes.

Q. Do you know whether the fall is the same?

A. I can not tell. But I should

I think it would depend entirely upon the time when it would be measured. For instance, when the Sacramento is low the American comes down and scours this sand out, which would give it an additional slope; and if the Sacramento was high when the American came down of course it would clog it up here.

Q. How long have you noticed this scouring-out-process in the American river?

A. I have been familiar with it since 1862; have seen it most every flood.

Q. Has it happened every year.

A. I can not say it has every year. It depends on the relative height of the two rivers.

Q. Which river usually rises first?

A. The American usually. I do not know that it is ~~the~~ invariably the case.

Q. Do you know where this deposit of the American river is

washed to when it is washed out of the American?

A- Into the Sacramento of course.

Q Did you notice in '67-'8 whether or not the Sacramento river was washed out the first flood?

A- Yes

~~Q Did you notice in 1867-8~~

Q How far up was it washed out that year?

A- That was the year the mouth was changed. In 1862 we opened a channel through above the then mouth of it. But the condition of the waters was not such as to send them through there until '67-'8. Then the American came down high early - the Sacramento was low - and it went through this new cut and made this channel. That was the time that it washed a large portion of the bank away on the other side of the river, destroying Hoboken and other points over there.

Q You say it scoured out that year?

A. Yes. And washed this new channel through, carrying it all out.

Q. Did it wash any of the sand, above, or in the channel out into the river?

A. I presume it did; I can not remember.

Q. Do you know what effect this washing out of sand has had at or near the mouth of the Sacramento?

A. It has had the effect of filling up the Sacramento in front of the city until the Sacramento river water comes down and carries it off.

Q. How much has it filled up the Sacramento river at that place?

A. From first to last?

Q. Yes.

A. I should think at least 12 or 15 feet.

Q. Do you know whether or not steamers were in the of running at or near the place where the mouth of the American

river is or was before the cut was made, before the filling up of the Sacramento?

A Yes. Steamers and other vessels landed in the mouth of the American river.

Q Where did they land?

A They landed on the south bank of the American river, for I should think a quarter of a mile or a half a mile from its mouth. Quarter of a mile at any rate.

Q Up to what time?

A Up to 1861-2 I should think

Q Summer and winter

A I think so.

Q At what place did they land?

A Well there was deep water at that time all along on the American river at the south bank. You could land anywhere. There was no particular place that I remember of.

Q How deep was the water there at the mouth of the American at that time?

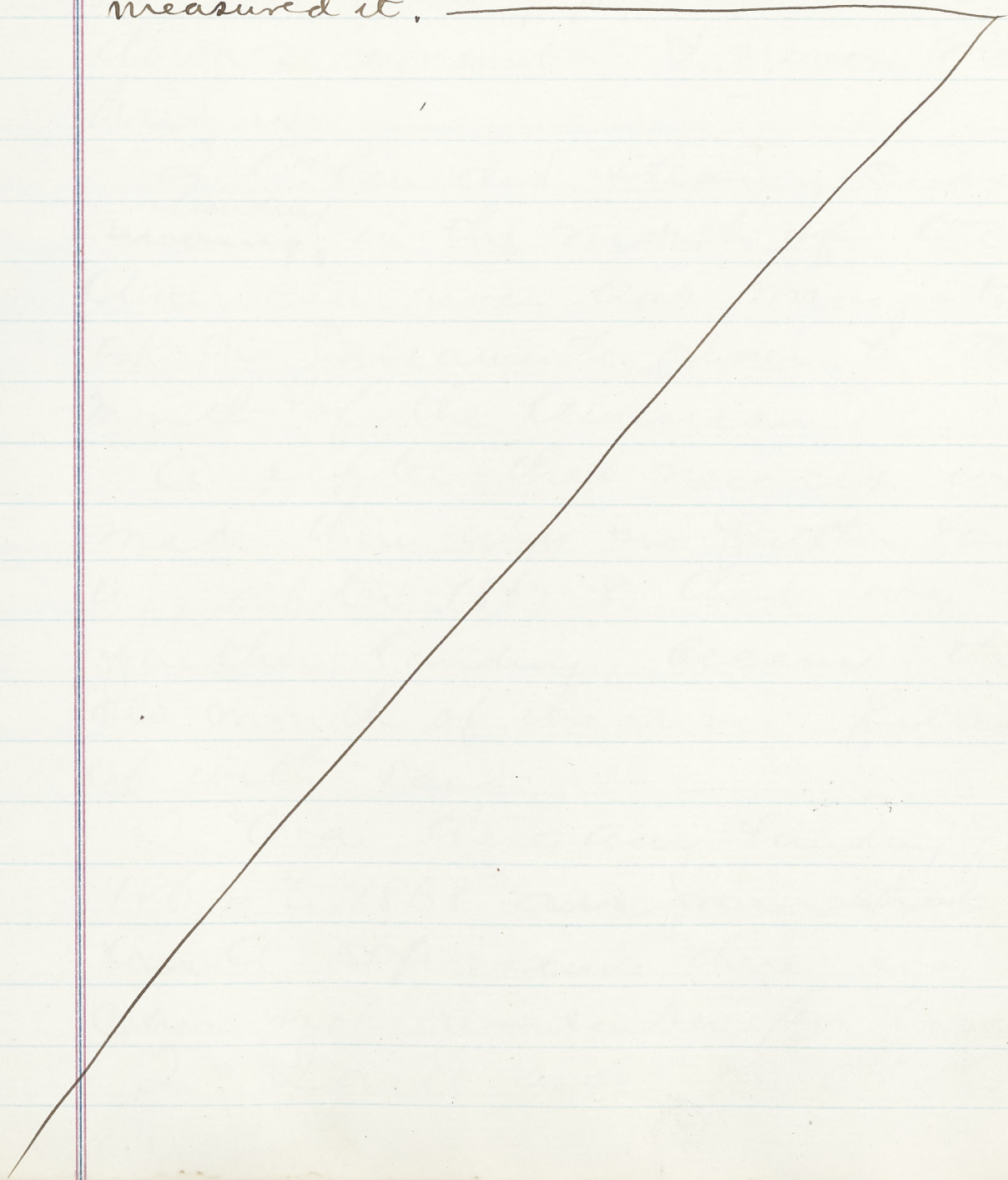
Mr. Cathi- Do you say they landed

in the American?

A- On the south bank, just at the mouth of the American river, just up a few hundred yards in the American river.

Mr. Hart. 2 - How deep was the water in that river at that point in the summer time?

A. I do not know that I ever measured it.



I rafted logs in on two or three occasions

Q. What is that?

A. I rafted logs from the saw-mill that was located there on two or three occasions

Q. About what depth would you estimate? A. I should think it six or eight feet at least at low water, perhaps more, I do not remember I never measured it

Q. When did Steamer cease landing ^{landing} in the mouth of the American river and navigating up the Sacramento river to the mouth of the American?

A. After that new cut was made there was no further landing, after 1867-8 there was no further landing, because the old mouth of the river filled up with sand.

Q. Was there any landing from 1862 to 1868? and from that time A. I presume there was I can not remember positively.
Q. I will ask you whether

Or not it comes be possible for a steamer to land within two hundred yards of the old mouth of the American River at this time?

A. At this time? Oh no!

Q. How near to that point can steamers navigate?

A. Well, there is a large bar formed outside of where the mouth of the American River was in early days. I should think fully a half a mile wide.

Q. Does that entirely fill the bed of the Sacramento at that point?

A. Yes sir, in the fall of the year the bar is sometimes larger and sometimes smaller depending on which river was up last, but I think every fall there has been sand hauled by teams off that bar.

Q. And still it has filled up so they cannot navigate it?

A. No sir.

Mr. Cablin. Object to the question as leading

Mr. Hart. Do you know whether or not there was a saw-mill on the banks of the American River?

A. There was.

Q. When was that?

A. I think in 1853.

Q. State whether or not steamers ever went to that saw-mill?

A. I do not know that they did but they could have gone there very easily.

Q. What was the nature of the Sacramento River opposite the City of Sacramento in 1849 and 1850 and from that time on up to 1862?

A. Well, I was not a boatman and had no occasion to be on the river but there was considerable sized vessels lying along on both sides of the river all along the front and some above scattered along.

Q. What kind of water did the river carry?

A. It was clear at that time.

Q. What was the water fit for?

A. - It was good for any purpose that river water was good for.

Q. For what purpose was it used?

A. It was used for drinking purposes.

Q. By the City?

A. Yes sir.

Q. For any other domestic purposes?

A. I suppose it was used for all domestic purposes.

Q. It was good for that, was it?

A. Yes sir.

Q. What was the character of the banks?

A. The banks on this side were steep.

Q. Abrupt?

A. Yes sir abrupt.

Q. How deep was the water at the bank?

A. Well, I say, I never measured it but I

should suppose it was from ten to fifteen feet deep from the character of the vessels.

Q. How high were the banks above low water mark?

A. I should think fifteen or twenty feet.

Q. How long did they remain to be that way?

A. My attention was never called to the filling up of the river until after this flood & spoke of 1861-2

Q. Then you noticed both rivers at the same time?

A. Yes sir, as to the effect of that flood on them

Q. From the mouth of the American River down, how far is the navigability of the Sacramento River destroyed where it was formerly navigated

Mr. Catlin. Objects to the question as leading and assuming a fact that is not proven in the case, and one which defendants dispute

The Court. Let him state what was done.

Mr. Hunt. Well, how far down then from the mouth of the American river is it impossible to navigate where navigation was formerly carried on

Mr. W. C. Belcher. Makes the same objection as was made to the last question

The Court. It is the same thing as the other question.

Mr Hart. I will go over this Examination again, I will not draw the question and go over the Examination again. State whether or not a sand bar has been formed near the banks of the American?

A. It is below where the American ran out, a sand bar has been formed.

Q. State whether or not the river was formerly navigated when that sand bar is?

A. Yes sir, it was when the American discharged through its regular mouth, it was navigable then.

Q. State whether or not it was actually navigated at that time? A. It was navigated by boats yes sir.

Q. State whether or not it could be navigated now in that place? A. It can not be where this bar is.

Q. Either in the current or

Summer? A. No sir, - I say not in the winter; in Extremes high water boats could run over this bar probably

Q. During how much of the year could it not be navigated at all? A. I do not

think it could be navigated nine months out of the twelve

Q. That is nine months out of the twelve it could not be navigated? A. It could not be

Q. Now, how far down from the mouth of the American River is the Sacramento in that condition so that it can not be navigated

Mr. Catlin. Objects to the question on the same ground as before Mr. Hunt. No, I say how much of the Sacramento can not be navigated, I don't mean clear across the river but I mean how far down the river on the East side is it impossible to navigate the river where it formerly was navigated

Mr. Cadwalader. The area of the river bed

The Court. I think it is as easy to ask him what the extent of that bar was. I sustain the objection.

Mr. Stark. How far down does that bar extend?

A. It extends I should think three quarters of a mile below the present mouth of the American river.

Q. How far out into the river?

A. I should say half way across.

Q. Halfway across the original bed?

A. The bar throws the channel of the river on the other side.

Q. Halfway across the original bed?

A. Perhaps all the way across the original bed as it was before the flood of 1867-8.

Q. I will ask whether or not steamers can be landed on the margin of that bar you have spoken of at any place?

A. They could not come right up to the land, I think.

the bar shelves off

Q. Could they come up to the bar? A. No, I think not, not near enough to run a plank out, they could not come up

Q. Why? A. Because the bar narrows out towards where the channel of the river is now

Q. State whether or not you have occupied any position in the last two or three years in which it became necessary for you to take observations in relation to this subject? A. Yes, I was unfortunately one of the Drainage Commissioners appointed by the Governor to examine into this subject

Q. How large were the Steamers that ran up this stream during that time from 1850 up to 1862 - 1867 - 1868?

A. The Sacramento river you mean? Dr. Des.

A. Well, they were large Steamers, the Senator, The New Wares, the Capital and those boats

Q. Do you know whether they were ocean steamers?

A. There were some small ocean steamers came up, the Gold Hunter and some others I can not call to mind now came up there in early days.

Q. Do you know whether this river would be navigable for this kind of vessels at this time? A. I do not think it would.

Q. How long since it has been navigable for that kind of vessels? A. Of course, in high water it would be navigable.

Q. I mean at ordinary water?

A. At low water it would not be.

Q. I mean as it was in 1850, how long has it been so that they could navigate as well as they could when you first knew the river? A. Well, I am

hardly prepared to answer that question, I am not a boatman, I have only been seldom on the river.

Q. Have you taken any observations opposite the City of Sacramento, as to the filling up of the river?

A. Yes sir, it is filled up as I stated before.

Q. About how much does it filled up opposite the City?

A. Well, I should think ten or twelve feet.

Q. That is where the water now runs? A. Well, yes on an average, perhaps right in the low water channel it would not be filled up that much but in the summer time the water would be in a channel through the sand that has formed and that forms in the summer time, which in the winter time is not there.

Q. How much higher would you say the bed of the river now is than it was in 1850?

A. I should think on an average it would be ten feet

Q. Ten feet high? A. Yes sir

Q. Have you ever noticed

Whether or not this sand goes down the river after it forms in bars? A. Yes, it moves, as I understand it, it moves in high water all the time down the river.

Q. It moves down the river?

A. Yes sir.

Q. Have you ever seen it when it was moved?

A. I have never seen it except in thick muddy water.

Q. What is the difference between the water now and the water in 1800?

A. Then it was clean and now it is muddy.

Q. The water in both rivers?

A. Yes sir.

Q. How long has it been muddy?

A. I think it has been muddy most of the time since 1861 - 2 since the flood of 1861 - 2.

Q. Can the water now be used for domestic purposes as it is taken from the river?

A. Well, a great many do use it.

Q. How do they use it - do

They clean it just?

A. Most people do, but a great many use it however as it is drawn from the hydrants.

Q. Where does it come from when it comes into the hydrants?

A. Right from the river. It is pumped directly into the pipes from the river.

Q. Is it not pumped into a tank?

A. No sir, not since the Holly water works were put in, they pumped directly into the pipes.

Q. Do you notice any difference this year in the condition of the water?

A. I did not notice any difference. It is usually clearer in the summer time of course than in the winter, the river is low.

Q. Did you notice whether it has been clearer this year than during former years?

A. I have not noticed it that way.

Q. During the fall of this year?

A. No sir, but I will say that I have a filter at my house and all the water that we use goes through the filter, both winter and summer and consequently I would not have an opportunity to notice it, that other people do.

Q. You do not know? A. No sir.

Q. What effect has the raising of the river bed had upon the drainage of Sacramento City?

A. It has almost destroyed the natural drainage of this City.

Q. Almost destroyed it. Why has it affected it in that way?

A. It causes the sewage water to come in all down through the Country where we formerly had drainage. The breaks that have occurred in the levees have destroyed the canal that was made to a great extent for drainage.

Q. How long does this sewage keep the water in the City of Sacramento during the year, an ordinary year?

A. Well, during the time the river is high

2. How long did it keep it in this City last winter say on O. Street and some of the other streets?

A. Well, I should think a couple of months probably.

2. How far out O Street did it keep the water in the City for a couple of months?

A. Well, it came up O Street into the lower portion of the City west of 6th Street

2. How long did it keep it on R. Street? A. About the same length of time I can not tell exactly but I should think two months.

2. A large area — how large was the area of country then covered by spaza water?

A. Oh, a great many blocks in the lower part of the City that were covered during that time.

2. How do they get the water out of the City

Q. It has been pumped out on two occasions, and in the spring of 1878 the water was pumped out for I think about three months at that time the pumps were kept in operation.

Q. Why is that this water would not run off as it formerly did? A. Because the levees broke below the City and covered the ground.

Q. How high is the bed of the river, that is, what is the comparative height of the bed of the river on this low land that you say is sometimes covered there with sewage water?

A. Well, I hardly know, of course the water in the river at high time, is a great many feet above it. On low water it is below it I presume. The City Engineer could tell you exactly as to the heights.

Q. What is the capacity of those pumps with which the water was pumped out do you know? A. I do not know, in

1878 we had four Chinese pumps, thirty inches wide and six inches deep, and we had a wrecking pump belonging to the R.R.Co. and three other pumps going all the while.

Q. what did you do it with, steam A. yes sir we had two or three engines

Q. How long did it take to pump the water out?

A. Well we pumped at it from about the middle of February to some time in May, we got it down probably after pumping about a month; we got it down off the greater portion of the flooded district and kept it down from that time on

Q. You know what effect this water remaining in the city had upon the health of the city in those localities

A. I never have heard any complaint from sickness from it

Q. Was there any water on Y. St.

A. Oh yes we pumped this out at R. Street and all south of R Street was a sea of water from front

street to 22^d street

Q. This water that you are speaking of now was the same water that was on Y. It was it. A. Yes Sir.

At that time there was no levee on Y. street, that ^{is} ~~was~~ in 1878 there was no levee on Y street, the railroad embankment was on R street several blocks you see, this side of Y street. There is where the pumping was done

Q. Last winter, how was it.

A. Last winter pumping was done on Y street, at the same time a levee had been constructed on Y street, the lower limit of the city and the pumping last year was done there

Q. How high is the Y street levee?

A. ~~about~~ ^{where} the pumps were located it was probably six feet high, six or seven feet high

Q. How broad? A. It is
20 feet wide on top

Q. Was that the first time
you ever had a levee there
at Y Street?

A. Yes Sir it was built after
this flood of 1878

Q. Had that country been
ever flooded before that time?

A. Yes Sir usually in
the winter, not so much
as it was at that time

Q. Not so much as it was
in 1878? A. No Sir

Q. Has it ever flooded more
or not so much in 1862nd, as
in 1878?

A. It was more perhaps
in 1862.

Q. How in 1867 and 8?

A. I think the water was
higher at Y Street than at
R Street in 1861 and 62 than
it was in 1878. Because there
were no levees then on the
American River, and it
all passed, the whole river
passed right over the city

Q And in 1867 and '68 how was it?

A. It was all covered as I say from front street to twenty second.

Q. In 1867 and '68?

A. Oh, in 1867 and '68, the water was kept out at that time, ~~and~~ ^{but} there was some water below here.

Q How was it kept out?

A. It was kept out by the levee that we built in 1862.

Q Around 4th street?

A. No Sir, the levee at that time was constructed to Freeport by the city, some fifteen miles by river below and that kept the back water out at that time.

Q. So that you had no water on 4th street?

A. No Sir except in some low ground.

Q You spoke of raising the levee, a part of the north levee.

A. Yes Sir

Q. Did you find it necessary

to raise any of the other levees?

A. There were no other levees raised in 1868 except the levee of the American River.

Q. Well I mean since that time have you found it necessary to raise any of the other levees of the city?

A. No Sir I believe there was some of these levees below here raised this last season, this last fall.

Q. Levees were pretty high in 1862 and in 1867 and '68?

A. Yes Sir, the flood of 1867 & '68 was in the American River. The American River at that time was unusually high, higher than it was in 1862.

Q. How much ^{was} ~~was~~ the cost of increasing the size of this levee?

A. In 1867 and '68 the firm of which I was a member had a Contract at that time for doing it, and what the city paid and the railroad Company amounted to

about fifty thousand dollars

Q. For the north levee?

A. Yes Sir, that is the levee from I think about 20th street where it began to the East end of the levee at Brighton

Mr Catlin just state the distance?

A. Well I suppose nine miles.

Mr Hart. Q. How much wider was the levee made and how much higher?

A. It was made three feet high on top for the city and the Rail Road Company paid the additional expense of widening it to fourteen feet wide, between the bridge and Brighton, the east end of the levee, they paid the difference, making it fourteen feet on top for a rail road track

Q. When was that do you say?

A. That was in 1868.

Q. You had raised it in 1862?

A. That levee was built originally in 1862.

Q. I understood you to say that you raised it four feet higher?

A. I say it was built in 1862 four feet above the high water of 1862, the big flood as we call it, then in 1867^{and} 68 the water came just to the top of that levee, making it four feet higher than it had been before.

Q. Had there ever been a levee along the north of the City of Sacramento prior to the flood of 1862?

A. A little levee up as far as thirty first street that came down.

Q. How high?

A. Oh, I should think two or three feet, probably three or four feet on an average.

Q. Had that been sufficient to protect the city prior to that time

A. Well it had always given some trouble I think, but there was no flood from 1851 and '52. I believe until 1861 and '62. The levee had answered the purpose and kept the water out, during that time.

Q. Would such a levee on the north side of the city protect the city during any kind of a storm now?

A. Oh, no.

Q. How much higher than that levee does the water run now, during ordinary high water in the American River?

A. Oh I suppose it would come over that levee six or seven feet deep.

Q. Seven feet deep?

A. Yes six six or seven feet deep.

Q. Do you know what is the cause of that?

A. Caused I presume by the bed of the river.

filling up

Cross Examination
of
W. F. Knox

Mr Catlin - Q. Mr Knox that old levee that was built prior to 1862, did they extend all around the city?

A. No Sir it went up on A street I think and back further north than the present levee to 31st street and came across 31st street to Bums Slough

Q. Did'nt it go down Bums Slough to K street and then down K street to the city front A. Yes

Q. Was not there a levee on the city front A. Yes

Q. Was not there a levee on the bank of the American River all the way around up to Rahab's Landing?

A. Yes Sir it did not take in all of the City! It took a portion of it

Q It extended around the improved parts, I did not mean the City plat as laid down on paper, but there was a levee that extended all around the improved parts of the City was not there?

A. Yes.

Q. Please look at that map and say how that levee was marked on that map?

A. That heavy ~~line~~ ^{line}, is the levee as it existed before 1862.

Q. There are some other questions I would like to ask you in regard to this map. I will ask you to examine that map and see whether that heavy shaded line there coming down here is the old levee?

A. Yes Sir that is the levee that existed before 1861 and '62

Q Do you know when that levee was built?

A, Not positive, along in fifty odd, after the blood of 1851 I think

Q. The blood of 1852 and '3 probably?

A, Yes Sir in 1852 and '3

Q. That levee was constructed after the big blood of 1852 and '3 for the purpose of protecting the city was it not?

A. Yes Sir.

Q I will ask you whether you know of any Canals or ditches that were dug to aid in relieving the city from the high waters of the American River prior to 1862 or since that time — particularly was there one built on the other side of the river, and if so describe it?

A, In 1868 at the time I speak of the levee having been raised an additional levee built to the eastward

A Canal was begun across here. In the meantime this river had cut in further there and some further here which made this head sharper than it is on this map. The canal was cleared out and an old slough existed in here and a connection was made with the river, ~~there~~ ^{here and} here. That was in 1862 that the first work was done there.

Q Mr W C Belcher - Q. Specify that so that the reporter can get the distances and places?

A. That began at a point about a half a mile below the present Rail Road bridge. This point the entrance here was about half a mile below the present Rail Road bridge.

Mr Callin, Q. On the north side of the river? A. Yes sir

Q. And extended where?

A. It extends down and came out just above the bridge known as Sister bridge.

Q.

Q. What effect had that canal upon the lands on either side of it?

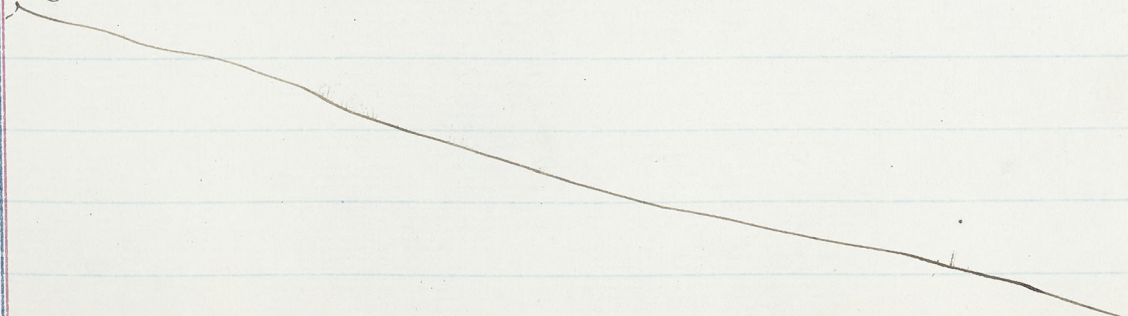
A. It caused the river bed to hill up of course.

Q. The river?

A. The original river bed.

Q. That portion of the river bed which would be cut off by this canal?

A. Yes Sir as the current went through more and more brown year to year, this of course would hill up brown dead water.



Q. State what effect it had upon the land or line on either side of that Canal. State whether it flowed sediment or sand on those lands?

A. I do not know that it flowed any sediment on the lands adjoining this Canal. But it did here around here by what was known then as Rebels tummy.

Q. Did not those lands overflow in periods of high water; the lands lying on either side of the Canal? did not those lands overflow when the water was high in the American River?

A. I do not think it did.

Q. Do you know whether it did or not?

A. I do not think it did. The Canal was intended for a relief.

Q. But when the American river had a high flood during the winter did ^{not} it overflow all those lands in there? did not that Canal overflow, or did that carry all the water?

A. No. It did not carry all

the water.

Q. Well, did it overflow all the lands there? A. I do not think it overflowed them any more than they would have been overflowed without the canal. It did overflow them of course; the water overflowed the lands.

Q. The water always overflowed those lands at high water did it not? A. Yes. This was a bar which had been formed, with willows and cotton woods growing on it; which had been formed in its natural order by the changes in the river.

Q. How much did the American river at that cut off fill up after that canal was made? How much has it filled up?

A. It has filled up now I think fully to the height of the original bank.

Q. Down as far as what you call Rebels Tannery?

A. Yes. And down to where the new channel comes in

Q. State about what street; about ~~what~~ opposite what street as marked on that map?

A. This old channel ran from where the Canal starts out to where it comes in. This old channel has filled up fully to the height of the original ground.

Q. Down how far?

A. Down about say where 20th St would intersect the river.

Q. Did not you say Rabbs tannery was about opposite 28th St.?

A. Yes, about opposite 27 or 28th St.

Q. In 1867-8 you say the water came just to the top of the north levee. State how far and on what portion of that north levee it was that the water came up that high?

A. It was supposed to be caused to some extent by the Embankment at the north end of the railroad bridge, and the indications were that it was so caused.

Q. That Embankment (back)

the water up? A. Yes. At the railroad bridge we put on, to make that five feet above high water, two and a half feet of levee; but half a mile East of that or three quarters of a mile East of that, we put on the five feet; showing that there was quite a slope through to where the bridge stood. That Embankment gave way at the north end of the bridge during the flood.

Q. There was a long Embankment to connect the railroad with the bridge itself, on both sides of the river, was there not?

A. There was at that time an Embankment on the north end of the bridge. It was replaced after that with trestle work.

Q. It was then Embankment?

A. During this flood it was Embankment.

Q. That Embankment backed the water of the American River, making it higher above

that point? A. Yes. It was that way at that time.

Q. It was above that point where the water got so near the top of the levee? A. Yes.

Q. Was it your opinion from your observation, that that embankment caused the water to be high there? A. Yes.

Q. Now, speaking about what was called by Counsel, the scouring process when the American river is high, do you mean that it scours out the whole of the debris that is in the bed of it, down to its original bottom? A. No.

Q. You mean that it scours out a considerable portion of it? A. Yes.

Q. You have been speaking of the depth of the water in the Sacramento river and how much the bed of the channel has filled up. Have you any special knowledge on that subject? A. No, I state that I had not

Q. You said you thought that, so, but that is not based on any measurements of yours?

A. No. No measurements

Q. For instance, if you were asked what the depth of the water now is — say today during the month of November — in the Channel of the river at the K. Street Steamboat Landing, would you be able to tell?

A. I could only guess at it

Q. Now, I will ask to guess what you think it was during the month of November right off the trucks there?

A. Well, I should judge ten or twelve feet

Q. I will ask you from your observation what has been the general effect of this north levee, commencing near Brighton at the farther end and extending from there down to the railroad shops at the mouth of the American river, upon the American river, when it is at flood stages

A. It has the effect that a

wing-dam comes here, of course. It throws the water all north of the American river.

2. You know how far lands up the American river are affected by that back water during high periods; say when the Sacramento and the American river are both high?

A. It covers all the low land up to Feather river at high water.

2. But how far does the effect of the levee extend in back up the water of the American up toward Brighton? How far does it slack the water and make it comparatively still?

A. Well, it slack the water up about I should say, to where this tannery was, about 28th Street.

2. Does the water ever come up on the low lands on the north side of the levee at the Fayer Beet Factory and over the grounds in that neighborhood? A. It did in 1867-8; all over the ground

on the outside of the levee.

Q. Has it not since that time?

A. Not over all the ground I think since that time.

Q. It has come over it but not so extensively?

A. Not so extensively nor so deep.

Q. Does that water come up against the ~~bridge~~ north levee at that point?

A. It did at that time. I do not think it ever has since on the East of Burns' Slough, which is a mile probably inside of the Sugar Beet Factory.

Q. How far did that slack the water up the river

Mr. Cadwalader. Ask him whether it would slack it at all, or not.

Mr. Catlin. When it comes up against the north levee, in the vicinity of the Sugar Factory and below Rooney's ranch does it slack the water above that? A. I presume it does.

2. Well about how far?

A. I am not able to say
Mr. Cadwalader. Do you mean
the channel

Mr. Catlin. I am examining
the witness. I am not asking
about the channel but the lands
which were overflowed.

I will ask you whether the
water in the Sacramento river
has or has not been used for
domestic purposes in this City
from an early period? if so,
how long?

A. I think it has been used
for general city purposes since
the first works were established
here, probably in 1851 or 1852

2. The water works? A. Yes.

2. Those water works pump
the water direct from the Sac-
ramento river do they not?

A. They did — Since the Holly-
day stem of works were adopted.
Before that it was pumped into
a tank and drawn from that
through pipes

2. It was pumped from the

river right into a tank?.

A. It was

Q. Prior to the adoption of the present system? A. Yes.

Q. Then it was drawn from the tank on the top of the water works through pipes into the City? A. Yes.

Q. Since the adoption of the Holly system it is pumped directly from the river into every house town?.

A. Yes. Into the Main.

Q. When was that Holly system established? A. I think about eight years ago.

Q. It is drawn from the ditches into the houses for ordinary use? A. Yes. In most cases.

Q. This Sacramento river water is the only water that they use here, is it not? A. It is used that way by all except those who have filters.

Q. But they use the water? They do not use well water, do they? A. No. None that

I know of

Mr. Hart. Do you mean for drinking purposes or what purposes? A. All who have not filters use the water out of the big drains?

Q. For drinking purposes?

A. Yes

Mr. Cablin. Let me ask you, is it used for washing purposes?

A. I think very little in the State in which it is drawn from the big drains.

Q. What? A. I do not think it is used for washing.

Q. How is the washing done?

A. I think they have barrels in which they settle the water.

Q. It is the same water but they settle it? A. Oh yes; they settle the water, but they settle it.

Q. I am seeking to get at its sanitary qualities. The people here do not hesitate to use that water? A. Oh no.

It is good water when you get the mud out of it properly.

Q. When the mud is in it,

is it good?

A. I can say it is good for dyspepsia; that it helps digestion.

Q. You remarked you thought the Sacramento river was higher in 1868 than it was in 1862?

A. Yes.

Q. At what points? You mean out here do you?

A. At all points I think East of its mouth.

Q. How far East of its mouth?

A. The farther up our levee went, the higher the water was. That is, while it was two and a half feet, as I said a while ago, at the railroad bridge, it was fully four feet at the East end of the levee at Brighton, three miles above that.

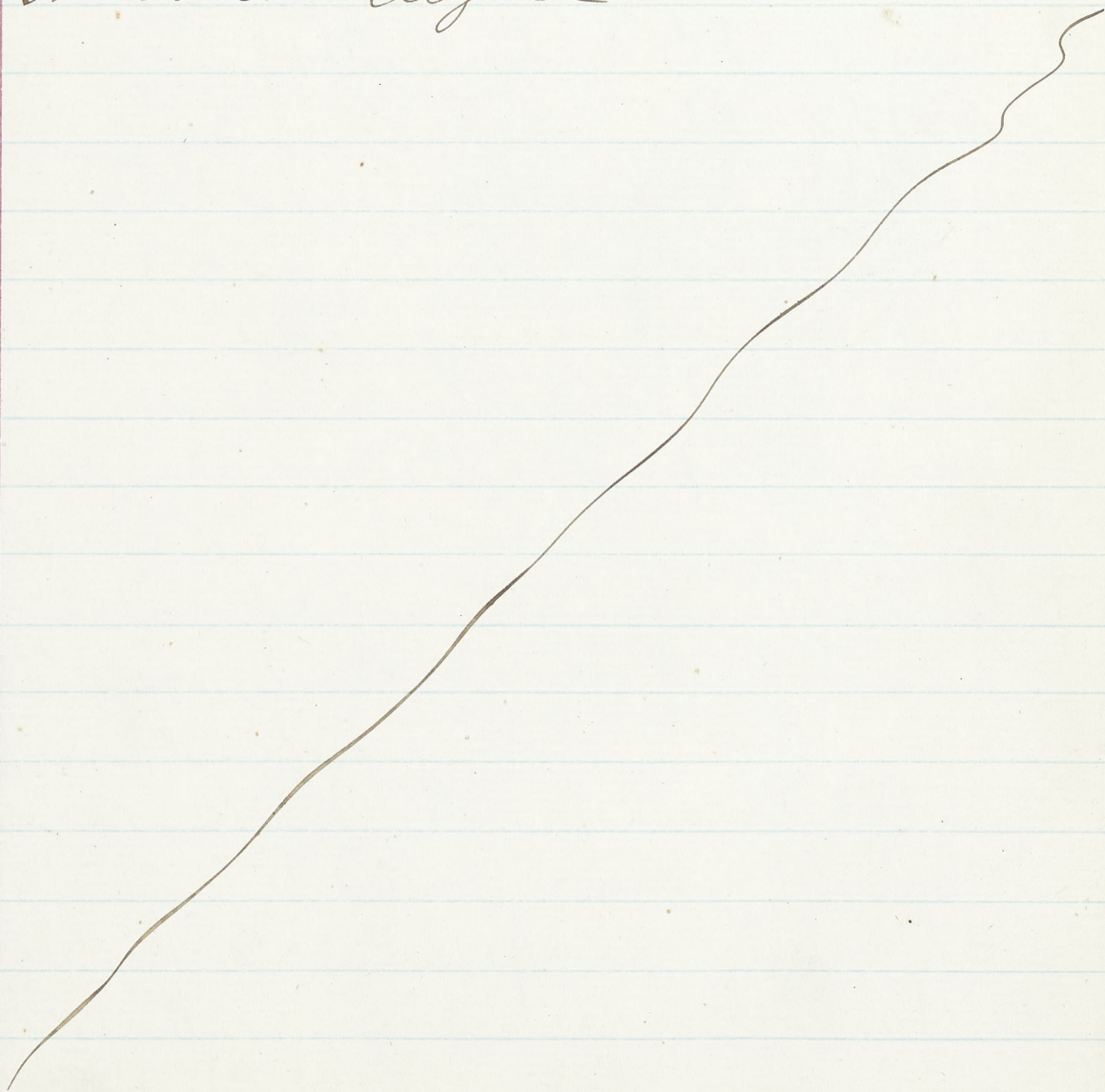
Q. Now when you got above the influence of the levee, say up at Patersons Station, was the water higher there?

A. I do not know; I can not tell.

Q. You do not undertake to

Say that the American river
in 1867-8 - at that flood -
discharged more water ~~or~~ was
higher than it was in 1862,
Except right here above the
levee

Mr. Hart. It seems to me
as though that were a dou-
ble question. I do not think
the witness means that it di-
charged more water but that
it was higher



Mr Catlin. How was it as to height compared to 1862? Say eight miles above the city or ten miles above the city?

A. I can not tell you because I was not there.

Q. And now in '78 there was a great deal of water came over the lower part of the city above R Street, and you were engaged in pumping it out over the R Street levee. A. Yes.

Q. What caused that water to come in here?

A. The levee broke about a mile I think below Y Street in District Number One.

Q. Was that known as the Lamedale break?

A. Yes.

Q. State the general extent of the overflow of that country below there, caused by the Lamedale break?

A. All the country below

The city do you mean?

Q. Yes. A. It overflown all the low lands south of the city.

Q. What was this water that came up to the city? I ask you whether it was back water?

A. It was back water, yes.

Q. Still water was it?

A. After it filled up it was still water. When the break occurred it ran up towards the city, the same as it ran down? and spread out like a fan and ran out every way until it filled up.

Q. It filled up and then it was apparently still water?

A. Yes. Dead water.

Q. How did that get through the R street levee? Was that open?

A. There were three openings in the R street levee, which had been left for accommodation. One was occupied by the

trestle work of the rail road

Q. There were openings clear to the bottom?

A. Yes. Clear to the bottom.

Q. And the water backed up through there and covered the country there?

A. Yes.

Q. Describe it?

A. The break occurred about three o'clock in the morning at Lumbales. I was street commissioner and had charge of affairs at that time. I was notified and got the men and went to work and stopped those openings in the R Street levee. and kept a great deal of the water out. Some had got in while we were working, had run in while we were at work. And then of course, as it had been raining and continued to rain, all the rain water that fell after that, north

of R Street accumulated
Against R Street are the low
lands

Q. Then after you stopped
those openings in the R
Street levee, the water which
was inside the levee in the
lower part of the city, was
partly the water that flowed
through those openings, and
partly the water that accum-
ulated in here from the rains
which were heavy at that
time? A. Yes

Q. That was the water
which you engaged in
pumping out? A. Yes

Q. Now state what happened
last year to cause the
lower part of the city to be
overflooded?

A. There was a break
occurred further down
the river last year, than
the Soudale break; about
two miles farther down

Q. Called the Glen break?

A. The Mesick break. I

think it first broke at Mericks place and afterwards at Harris place which was still farther down

Q. How did that water act?

A. That water acted in the same manner as it did before. But of course being farther down the river, there was less water come up against the city. In the mean time the Y street levee had been built and checked the water at that point instead of it coming to R street

Q. How did the water get above Y street and between that and R street

A. There is a stream called Brown's Slough that waters a considerable portion of land east of the city out as far as Brighton Station. That of course the water came in from and ran inside of the Y street levee and

accumulated

Q That discharged in
between R street and Y
street. A. Yes,

Q. And filled up the ter-
ritory between R and Y streets

A. Yes, And same this side
of R street?

Q There was none of the
black water from the Fern
break got in

A. I think not. There were
two openings where the sewers
discharged through the R
street sewer, which probably
let some water in

Q. I will ask you whether
that part of the city below
R. street for many years
had not usually been
more or less overblown
every winter?

A Yes it has.

Q You spoke of the
drainage canal having
been filled up did you not?

A. Yes,

Q. Describe to the Court

what that drainage Canal is and where it goes?

A. There are three ridges of comparatively high lands that extend into the river below here. The first is at Freeport about 8 miles by land below the city, and there are one or two others below there that extend into the river. So aboard drainage the Canal was cut through. An opening was made through this high land, this ridge of high land.

Q. That extends all the way from R street?

A. Yes commencing at R street.

Q. And runs through the late land?

A. Yes, through the late land and through the cut through those ridges.

Q. You made a cut through those ridges.

A. Yes.

Q. For the purpose of

discharging this water at what point?

A. At Snodgrass Slough: a slough which collects from the Nokelonne river: a tide water slough which collects from the Nokelonne River

Q. How far from the city?

A. About twenty miles twenty or twenty one miles

Q. What is the size of that canal running from R street down through the low lands until it strikes the first ridge at Greepark?

A. The Canal below the city to the Sutterville lake is fifteen feet wide on the bottom. Between the Sutterville lake and Beeche's lake below Greepark, it is fifty feet wide on the bottom.

Q. How wide is it from R street down to Y street?

A. I think it is from three to five feet wide. It branches below the city.

A branch comes up to sixth street and another

are up to 16th street.

Q. After learning of street from this turn to the first little basin, how wide is it? A. About nine ~~hundred~~ feet: about nine feet down x to where the forks come together x and there it is fifteen feet.

Q. Now the drainage canal has been filled up by the breaks on the Sacramento?

A. Yes. The sand that has come in through the breaks in high water has filled this canal.

Q. Was it filled up by any other breaks prior to the Sarnedale break? A. No.

Q. This canal is of comparatively recent construction?

A. Yes. There was a canal there before that, a small canal. But it is since the Sarnedale break that it has been increased to the size that I speak of.

Q. Since the Sarnedale break?

A. Yes. In '78: In the fall of '77 and '8,

Q. Then the breaks occurring since that time have thrown some sand into this canal?

A. Yes.

Q. Can you say whether that sand has been thrown out; whether it has been cleared out?

A. I am not able to say, I have had nothing to do with it since the last two years.

Q. Do you know extensively it has filled up?

X

A. I can not say from my own observation.

Q. Did you have anything to do with the construction of that cut by which the mouth of the American River was cut off and the river shortened there?

A. Yes.

Q. You were one of the levee commissioners were you? A. Yes

Q. Now just state what effect that cut had on the Sacramento river immediately below its mouth

A. It washed a large portion of the land on the west side of the Sacramento away in 1868 when the river first went through that cut.

Q. It has produced a bend in the river has it not, so that channel runs clear over where the original sail was?

A. Yes, I think it has thrown the river, the full width of itself farther west

Q. What effect has it had on this side of the river?

A. It has had the effect to boom this bar to some extent, which we were talking about

Q. Did you ever observe that bar before that time

A. No. There was no bar

above the old mouth of the American River at that time

Q. You were describing the old banks of the American River as they were originally. I did not quite understand you. You said there were perpendicular banks on one side. What did you say in regard to the other side?

A. That there was a point, a bar I call it, on the north side at that locality. ~~I was not there~~ The high water at all seasons of the year swept around against the bank on this side, which was perpendicular, while it was cutting away on this side it was forming a bar on the other side.

Q. How early was that? When did you first observe that?

A. That bar was there in '50 and '51.

Mr. Stark - Where did you say that was?

A. That was opposite 28th street.

Q. On the American River?

A. Yes. It cut away on one side and bonned on the other. It always did that.

Re-Direct Examination
of
W. G. Knox,

Mr Hart Q. What time in '51 did you first notice the water cut at 28th street washing away the bank on one side and the earth settling on the other?

Mr Catlin - the object as not proper re-examination

The Court - I think the witness may explain.

Witness - It was the natural action of the water, cutting in on one side and bonning a bar on the other side.

Q. But what time in '51 did you notice that?

A. That was in the fall

of '51. It was going on then.

Q. Did you notice the material of which the bar on the other side was formed. A. Yes.

Q. What was it

A. It was the material which had been cut away from the point on the opposite side

Q. What kind of material was it? A. It was sand and clay.

Q. Anything like the sediment which comes down now?

A. No. Of a different character

Q. How did it compare with the natural soil on the banks of the stream?

A. The banks of the stream as they existed at that time?

Q. Yes.

A. It was the same material. It was washed away on one side and lodged in slack water on the other side

Q. How far below?

A. The point would be on one side and the opposite point would probably be a

quarter or half a mile over on the other. And then you would cross over on another point and find the same thing again. The river was constantly cutting away at high water on one side and blowing portions of the material on the other side.

Q. You said that the embankment at the end of the bridge raised the water above, and for that reason you constructed your levee higher?

A. It was thought by the levee Commissioners myself too, that the embankment at the north end of the bridge had caused the water to be higher than it otherwise would have been.

Q. So that embankment was an obstruction to some extent.

A. ~~To some extent~~, it was an obstruction.

Q. When was that em-

bankment constructed?

A. It was constructed I presume in '62 and '63 when the rail road was built opposite the city.

Q. '62 or '63

A. '62 or '63. I do not remember which

Q. I forgot to ask you an your examination in chief whether or not as a member of the drainage Commission you ever examined the material which was brought down in the American River bed?

A. Not in the American River. Our examinations were confined entirely to Bear River and to the Yuba River

Q. Did you ever look at this stuff here in the American. A. Oh, yes.

Q. With a view of determining its contents and qualities

A. No.

Q. From your knowledge of the filling up of the river

Since 1862, I will ask you what will be the effect ultimately upon the city of Sacramento if that billing continues?

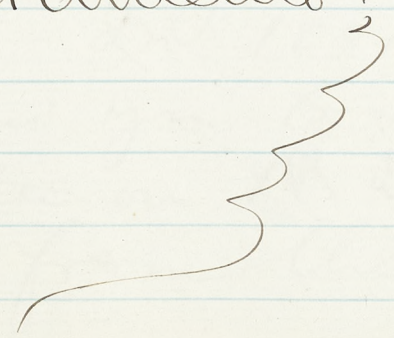
Mr Catlin - The object, however calling for the mere opinion of a witness who does not profess to be an expert.

Mr Hart - I can frame that he is a practical engineer.

The Court - you will have to show him an expert if you ask his opinion.

Mr Hart. If the objection is insisted upon I will withdraw the question.

Q. In cross-examination you said that the accumulation of water at R street was caused by the breaking of the levee below the city of Sacramento?



Mr. Catlin. You examined him about that.

Mr. Hart. I want to see whether I am mistaken about that. He said to me it was sewage water and I understood him to say to you that it ran in over the break.

Witness. That water on the lower side of R. Street was caused by the break. The water on this side was sewage water and sewerage water, waste water from the water works, and rain water.

Q. Where is the dividing line between those two bodies of water which you have described?

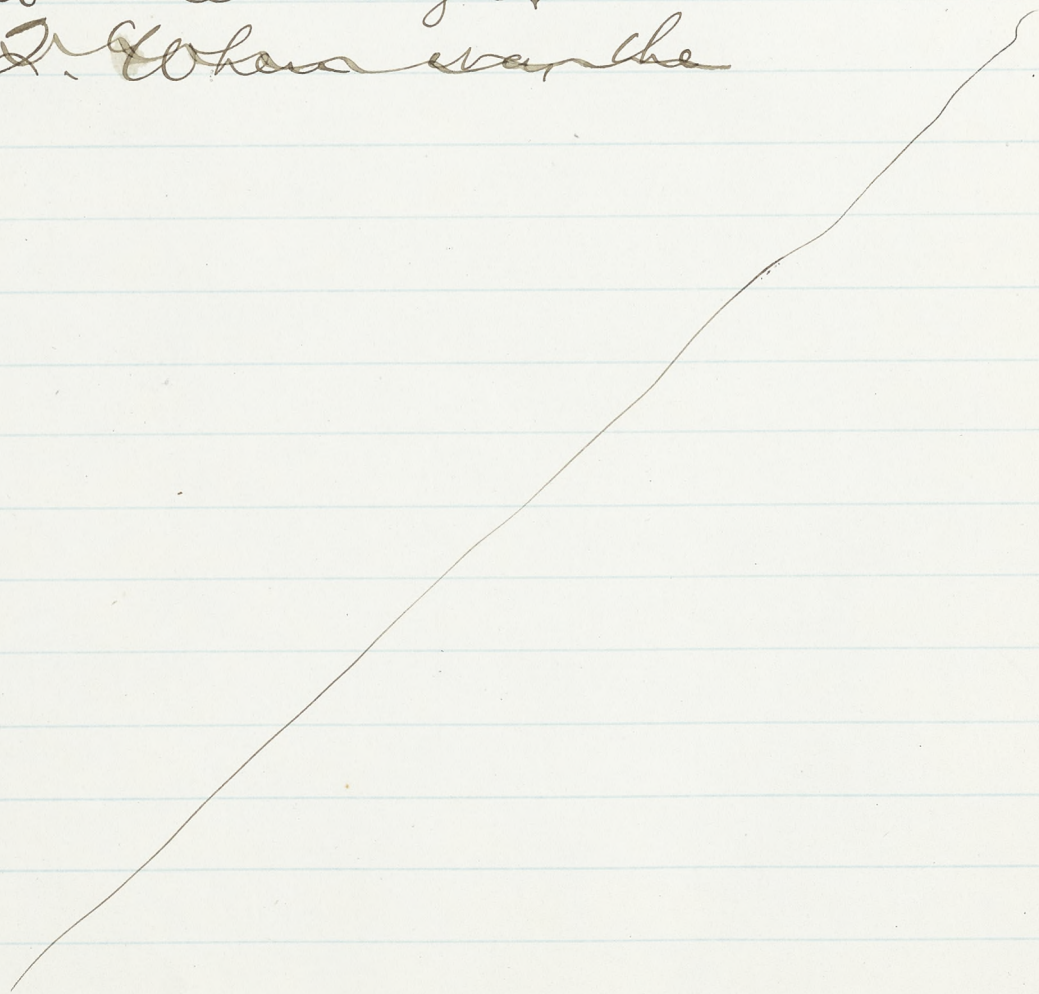
A. R. Street was the dividing line at that time, the curbment at R. Street.

Q. You are speaking now of the year 1878? A. Yes.

Q. In 1881 did I understand you to say that the water on ~~the~~ N. Street came in from the break?

Q. There was perhaps a little
 There were two small openings
 through Y. street which per-
 chaps were not closed in time
 to prevent some water from
 coming in. But the pollu-
 tion of water on the
 side of Y. street was sewage
 water, sewage water, drainage
 rain water, and water brought
 in by the sloughs which drained
 a portion of the country out-
 side of the City which ran
 into the sloughs.

A. When ever the



Q. When was the first time that the Riverside road was covered with water if it was ever covered?

A. I think in 1878. It was covered then I know. I do not remember if it was before that.

Q. Was it covered in 1862?

A. Oh yes. That is the ground the Riverside now occupies was covered in 1862.

Q. When was the first time that it was covered?

A. I do not think the Riverside road was constructed until after 1862.

Q. But I mean that land. When was the first time that you know of its being covered with water?

A. It was covered in 1847-2 or 1852-3; whatever time that flood was. It was covered then.

Q. Was it covered after that time until 1862?

A. I think not.

2. Has it been covered since 1862? if so how many times?

A. From 1862, it was protected by our levees until 1878

Mr. Cadwalader The water broke our levee in 1862, did it not at S. Street?

A. In 1862, it broke the old levee in many places?

2. At S Street?

A. Yes. It broke at R. Street, S. Street, and 6th Street

Mr. Hart. One moment. Let me get at my own idea about this thing. How many times has it been covered since 1862

A. It was covered in 1878 and this last winter - 1881

2. That is all since 1862?

A. That is all

2. Was it not covered in 1867-8? A. No. Because our levees kept all the water out from Brighton Clear down around to Freeport

2. Were there any levees to protect that road before 1862

A. I could not say. I presume there were some small levees before that time.

Q. Were there any such levees as they have now? A. Oh No. L. How much have they been increased in size?

A. The levee that is there now was built by the City in 1862. The height was established at four feet above the high water mark of 1862.

Q. And before that time you say there were levees?

A. I think likely, I can not speak positively now.

Q. Did you see the Cemetery covered with water?

A. A portion of it.

Q. The City Cemetery?

A. A portion of it.

Q. When?

A. It was covered in water in 1862 and was covered with water in 1878. A portion of the Cemetery is on the same level about as the Riverside road. A portion of this high land on the river has been covered also.

Q. Was that portion of the cemetery that was covered in 1862 used at that time as a cemetery, occupied.

A. ~~Because~~ Yes Sir, a portion of it, I think.

Q. During which year was the water deepest at the cemetery, 1862 or 1878?

A. 1878 - Well I am not sure, I can not speak positively about that. All the low ground was covered both years.

Q. Now I understood you to say in your examination in chief that the bed of the river opposite Sacramento was raised ten feet, that is filled up to the extent of ten feet, since 1850, and upon cross examination I understood you to say that the bed of the river had been changed beyond where its western natural bank was: that is what I understood you to say.

A. At that point

Q. Now I want to see if I understood you rightly. I want to know whether or not the bank subsequently formed, which you speak of in your cross-examination is higher or lower than the original bed of the river, which you say now has been filled up?

A. The new bed that has been formed on the other side is only opposite the new mouth of the American River - the channel or bed of the river in front of the City has not been changed in width.

Q. The place that you spoke of where the new bed was formed, is it higher or lower.

A. Well I have never examined it, I presume it is just in the same grade.

Q. The same grade as what - as the river above and below.

A. As the original river

above and below

Q. That is as it is now, but I mean as it was in 1850?

A. Well in 1850 there was a channel.

Q. Perhaps you do not understand me: there was the bed of the river which you said was fifteen feet from the top of the bank to the top of the water at low water?

A. Yes, that was in front of the city.

Q. And that water was of a certain depth A. Yes sir

Q. Now then there has been another bed formed there opposite the mouth of the American River. I want to know whether in that year the bed of the river was higher or lower than the original bed in 1850?

A. Oh, it is higher than the original bed of course in 1850.

Q. State if you please how much under the river is now

than it was in 1860 opposite ²¹⁴⁶ Sacramento?

A. It is the same mid the between here and Washington. The banks are about the same as they were then.

Q. Between the banks?

A. The banks are the same. At this point above the American River comes the American River and pressed itself toward the West and of course there it is a good deal wider in high water.

Q. Mr Cadwalader suggests that I ask this question: how back from the American River was the levee built in 1862 and '63?

Mr Cadwalader. The average distance?

A. Well from a quarter to a half a mile I could not tell exactly.

Mr Hart. Q. Did I understand you to say that that levee was parallel with the course of the river

Mr Cadwalader - The general course of the river

Mr Hart - I will ask you how did that levee run with reference to the general course of the river?

A. It was right on the bank of the river as the river was at that time at 28th street was in this city, this place where Rahels Lannery is, and the further up, the further it gets away from the river

Mr Cadwalader - Q. When it came this way?

A. Coming down this way, it got further away from the river. The river was taking a bend to the north and the levee came straight across the point you might say; there was a bend came in at Rahels Lannery and the levee was right on the bank at that point

Re Cross Examination of W. G. Knox.

Mr. Callin Q. Just point out on that map where the north levee runs?

A. The north levee runs on D street and back.

Q. I ask you to point on the map where the old levee ran?

A. This is the old levee (rebering) to.

Q. That is on A street?

A. That is on A street.

Q. Where was the new levee.

A. The new levee was built on B street, and then ran up, and in the mean time the river had cut into B street at this point on 28th street at Rahel's Lannery.

Q. Now after learning the point known as Rahel's Lannery about 28th street then the American River bends to the north does it not?

A. Yes Sir, and it heads out around in this direction and comes in here

Q. And the levee runs to the South East, does it not?

A. The levee ran up this street straight to 31st which is here and then it ran off in about this direction South-easterly to Brighton.

Q. Well what distance from 31st street to Brighton is it that it takes a South East course? - State about the distance that it continues in the direction that you describe from 31st street till it terminates on the high land?

A. It ran from 31st here about a half a mile nearly in the same direction that B street runs, bending a little to the South, to the bend where the Rail Road bridge crosses the American River, there it runs in a South East direction, about in this direction, nearly an

angle of forty five degrees with this to Brighton

Q. About how far?

A. From the rail road bridge about three miles.

Q. Does it terminate upon ground that is higher there?

A. Yes sir

Q. What is the high ground?

A. High ground, ground that was supposed at that time to be sufficiently high to protect the city.

Q. It commenced with ground supposed to be high enough not to be subject to overflow. Now how far does the American River continue its course after Rahel's Ferry, running in a northerly or north easterly how far does that bend in the river continue?

A. Well that bend approaches the levee about I should think about a mile and a half from here (Referring)

Q. It comes in again?

A. It comes in again

Q. How near does it approach the river at the point where it approached it the second time?

A. I think probably about a thousand feet at this time. It has been continually cutting in and cutting in since it was built.

Q. Then after that point of contact or near contact with the levee then what cause does the levee take again?

A. Then it goes off to the north

Q. Mr Hunt did I not understand you as saying that the water which came over that part of the city lying between R street and Y street in 1878 at the time of the Louisa break that some portion of that water backed up into this lower ground on R street through three openings in the R street levee. So A. Yes Sir

Q. ~~Was this~~ ^{then} the water which you pumped out

after those openings were closed was partly water coming from the Sacramento River, backed up in there, and partly from the rains, and partly from the ordinary leakage water as it is termed? A. Yes Sir

Mr Cadwalader - And sewage?

A. And sewage yes Sir.
Mr Callm' - Q. Now you spoke of the bar that is on the opposite side of the American River in 1851, opposite Rahelt Samney where the river was bluff and steep on this side and a bar formed on the other. State whether the appearance of that indicated that it was a recent formation or whether it was an ancient formation - was it same thing that occurred within a few years previously apparently or was it an old bar there?

A. It appeared to me to be

barred out of the material that was washed out by the action of the river

Q. My question was, did it appear to be then a recent formation or an old bar?

A. It appeared to be a recent formation, it was continually going on.

Q. Now my question is this, would that bar receive deposits coming down in high floods from the upper parts of the American River?

A. I think to some extent it would yes Sir. It always stopped in slack water.

Q. State during what years it was that the American River at and in the vicinity of Rahulo Larnney cut into and were into the bank on this side and how early it commenced?

A. The first time that I had occasion to observe it was in 1851 when I was working there.

Q. When was that old line built, the one that is marked on that map?

A. That was built after the flood of 1857 and '52 & '53, whatever year that flood was I can not remember exactly.

Re-direct Examination of W. G. Knox

Mr. Stark - Q. You spoke of the line adjoining the high land out here, same distance out?

A. Yes Sir

Q. What is that high land

A. It is what we call the red land

Q. Is that where it joins the Rail Road track?

A. Where the Sacramento Valley Road crosses the Central Pacific, where Brighton Station is. We built the line I think about a thousand feet probably beyond

Brighton Station And beyond
 there are it is the track of the
 Western Pacific Rail road.

Q. Well when you speak
 of it as high land do you
 speak of it as land above
 high water

A. No Sir water such as
 it was in 1878 would run
 over the tracks of the Rail
 road And the whole country

Q. How deep was it then?
 How deep would it run over
 that?

A. I think it would run
 over the rail road track three
 or four feet deep; water as
 deep as it was in 1878.

Q. And in 1881 also?

A. The water was not as
 high in there, nearly

Q. It was higher than the
 high land?

A. I do not think it ran
 over there in 1878, I am not
 sure.

Q. In 1881, I say?

A. In 1881 I do not think

it ran over there

Q. Do you know whether it was on the base of that levee in 1881?

A. I do not think it was at the extreme end of the levee there. I was not out there however. I had nothing to do with the levee. in 1884,

Q. Now you speak of the levee running south easterly

A. Yes Sir

Q. How much south of East

A. Well I think very nearly South East. After leaving Burns slough it is a little bent, at Burns slough it runs in a South easterly direction from the bridge and then it bends still further South; at Burns slough I think it there runs very nearly South east.

Q. Then does it keep the general course of the river or run from the river?

A. Well, it has the general course of the river but it is probably a mile from the

river there.

Q. Well it does not follow the bend? but Kufas the general course?

A. No Sir it leaves the river entirely

Q. What direction does it run from the Sugar beet factory?

A. It runs straight from Burns Slough, straight past the Sugar beet factory on the high land in a south easterly direction if I am not mistaken

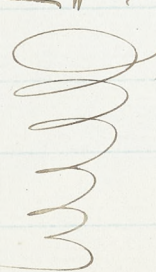
The Court - I presume you have surveys of this and a map.

Mr Hart - Yes Sir

The Witness - The city engineer can give you all this information

Mr Catlin - The blood that you speak of going under Brighton was in 1868 not in 1878?

A. Yes Sir 1868.

~~~~~  




# Testimony of Archibald Henley

Called for plaintiff

Suon,

Mr. Cadwalader. How long have you lived in Sacramento?

A. I was here first in 1850. I was absent two years and then returned here and have lived continuously here since.

Q. What business have you been in? A. I have been engaged in contracting for building in the brick department.

Q. You have been a builder?

A. Yes sir.

Q. What has your business been later? A. Well, continuously through engaged in that business.

Q. What kind of building?

A. Brick.

Q. What positions have you held here in the City, what offices? A. I filled the position at one time of Justice of



the Peace, and afterward a member of the Board of Supervisors and at a still later period I held the position of Police Judge.

2. Have you been one of the City Trustees? A. No sir, I never was a City Trustee — well I was a member of the Board of Supervisors under the Consolidation act, at the time the City and County were consolidated.

3. Have you been engaged lately in making brick on the other side of the river?

A. Yes sir.

2. Have you got brick yards over there? A. Yes sir.

2. How long have you had them?

A. About seven years I think.

2. On the gold side. How far back with reference to the Sacramento bridge? A. About a quarter of a mile that is formerly, at present not more than four hundred feet.

2. When did you commence building in this town as a contractor?



A. 1854

Q. On what grade even the houses then built here, the business houses? A. Well, that was prior to any filling, to any filling up of the streets, we built then on what was known as the old grade.

Q. How much lower is that than what is called the high grade? A. I think about nine feet

Q. Business houses, store houses?

A. Yes sir

Q. Brick? A. Yes sir

Q. Did they have cellars?

A. Yes sir, that is most of them had, some had not

Q. Were cellars used in those times by merchants? A. Yes sir

Q. The whole year round?

A. Yes sir, that is my recollection

Q. When did you first notice and change and any filling in of cellars, or seepage water so as to interfere with their use? A. Well, I think



Cellars were used up to the  
high water of 1861-2

2. Even on the low grade?

A. Yes

2. Without any inconvenience  
in the winter?

Objected to as leading  
Mr. Cadwalader. Since 1862 what  
changes have you noticed

A. Well there has been some  
water rising higher Every year.



Q. Well how high has it got now with reference to the original grade of the City, the original soil? A. Well, in high water in the winter time, my experience in digging cess-pools and such things is that I find that the water is very near the surface and in many places up to the surface.

Q. That extends throughout the City? A. Yes sir.

Q. What parts of the City have you built houses in since you have been here? A. Well, pretty nearly all over it, sir.

Q. Have you been building them for thirty years? A. Yes sir, from twenty eight to thirty.

Q. How in regard to cess-pools - I will ask you whether you noticed the same phenomena in regard to them that you have as to cellars - speaking of the rise of the water in cellars, has it been the same, or different, in cess-pools?

A. Well, the cellars have more



been filled up. I think the Health Officer for quite a number of years back has examined cellars here and ordered the filling up, I think most of them have been filled.

Q. Well, have you seen any that were not filled, in order to ascertain about how high the water of late years has risen in them with reference to the natural soil?

A. Well, I do not know of any Mr. Cadwalader, that has not been - filled, to my own knowledge, any cellars.

Q. Do you know how near the water comes to the surface on M and N streets?

A. Well, it is right up to the surface.

Q. We have that every winter do we not?

A. Yes sir.

Q. Where you live and where I live?

A. Yes sir, the water remains in the yards - the rain water, and I take it for granted <sup>it is</sup> the sewage water.



running, the rain water don't  
come away, it remains on the  
Surface

Q. How much would you  
fix the rise in the Siphage wa-  
ter in this City since 1862?

A. Well, my impression is  
it would be as much as eight  
or nine feet, nine feet say.

Q. What is the condition of  
the cellars in the high grade  
of this City during the last  
freshet? A. The freshet  
of last winter?

Q. Yes sir, the cellars in  
ordinary stores here on the high  
grade? A. Well, if there  
any cellars at all that had not  
been filled, they must have been  
filled full of water.

Q. Well, I mean the cellars  
on the high grade?

A. In places where it had been  
filled up to the low grade, in  
some places I think there was  
some water in them; where  
original cellars had been filled  
up, or cellars by reason of



Reason of the high grade is a great many buildings where floors have been put down, at what was known as lower grade when the grading commenced, and from that to the present grade is a space of some eight or nine feet.

Q. What was the level of the sewage water in this City last Spring Day during the months of February, March and April with reference to M and N. Streets?

A. Well, the water stood on the general surface there where it had not been filled up.

Q. What changes have occurred in the manner of building houses in this City since 1862?

A. I do not know that I understand your question.

Q. With reference to the level of the soil, what changes if any have occurred in building now; When houses are built are they built on the same level or are they built eight or ten feet higher up than they used to be?



A. Well, they are built higher eight or ten feet.

Q. Well, is that the general style now of building houses?

A. Yes sir.

Q. Are they built without Cellar?

A. Well, generally so, there is an open space left below; some finish them up for a sort of cellar or basement, and some leave them unfinished for a place to put wood and the like of that.

Q. During the winter season talking the Condition of affairs that existed south of Y. Street, after the break called the Mexican and Peru breaks, was there any earthly escape for the water except by pumping?

A. No sir, I think not. I do not know of any escape.

Q. What changes have you noticed in the condition of the river since 1862, the Channel of the river, the American and the Sacramento say during the last ten years?



A. They seem to have been filling up every year.

Q. Well how rapidly?

A. I cannot say, I do not know how rapidly; I never measured.

Q. Have you been in the habit of crossing the Sacramento river every day for the last several years?

A. Yes sir, I have crossed almost every day.

Q. Well, what changes have you noticed in the bed of the river as you went across?

A. Well, I noticed that the steamers and water craft passed through the draw in the bridge on the East side of the draw and I understood that the West side of the draw is filled up so there is no <sup>channel</sup> ~~water~~ there.

Q. So as to become worthless?

A. Yes sir.

Q. Have you noticed any accretions on the Gold Bank in the neighborhoods of the bridge, that is any fill from the west line of the bridge towards the center



of the river?

A. Well, below the bridge there is, and above the bridge, perhaps for three or four hundred feet above the bridge there is something of a bar formed there and it continues down about a mile.

Q. Well, what changes have you seen in the river bed that would be observable by you at low water in the last ten years?

A. Well, the bar on the Yolo shore makes out so that you can not approach the landing on the Yolo side, at least, not below the bridge.

Q. How much does it narrow the channel, say, down at the foot of R. street in low water from what it was when you first saw it?

A. I think along the river front the channel is perhaps not more than half the width that it formerly was, there is a bar makes out and comes out in sight, that extends apparently



two thirds of the distance

Q. How is it all the way down to Juttenville?

A. Well, below 20<sup>th</sup> street there is a bar on the Sacramento side and the current is thrown against the Yolo side again at that point and washes the bank.

Q. What changes have occurred in your brick yard in Washington in the last seven or eight years?

A. Well, the last two years the water has broken through. Prior to that since 1862 the levee kept the water out but the last two years the levee has been open.

Q. How was it in 1878?

A. Well, the levee did not break in 1878 over there.

Q. How was it in 1867?

A. It was not flooded in any of those years.

Q. State whether your brick yard over there has received any coating of sand and if so how deep?

A. Yes sir, my place over there has been



filled with sand

Q. Well, how deep?

A. From three to five feet - I would say from two to five feet.

Q. What kind of sand is it?

A. Well, this last winter the deposit there was a very coarse grey sand, good for building purposes

Q. Where did it come from?

A. Well, it came from the American river

Q. What kind of sand is it with reference to building purposes, making mortar?

A. Well, it is of the very best quality for that purpose. I bought a sample of it in with me.

Q. Where is it? A. It is on the ledge over there by the pilaster. That is a sample of what we are hauling from my little ranch over there, and piling in the city for winter and spring use, and the sand is covered (Referring to bottle marked - Ed Exhibit #7)



Q. What is it that you call your ranch over there?

A. Well, from twenty to twenty-five acres of land there, we cultivated it formerly.

Q. At what place?

A. Well, a portion of it at least was in what was formerly laid out as the town of Washington. I have become possessed of some blocks over there and the Supervisors of Yolo County vacated the streets and gave it to me in a compact form.

Q. Do you know what streets it lies between?

A. Well, I really do not. I do not remember the names, they have been abandoned.

Q. How close to the bank of the Sacramento river does it come?

A. Well, I think that the nearest point would be from five to six hundred feet.

Q. What makes you think that the stuff came from the American?

A. Well, because the current of the Amer-



(Can river studies across there

Q. Have you ever seen such sand coming out of the faciments?  
A. No sir.

Q. What is that sand particularly good for?

A. Well, I do not know of any purpose that it is good for unless it is for building.

Q. Well, when you speak of building, you mean making mortar do you not?  
A. Yes sir, making mortar for brick or stone or anything of that kind, or plastering.

Q. I want to ask you whether or not the coarser the sand is the better it is for building purposes?

A. Yes sir, we try to get the coarsest sand we can find for building.

Q. What is the condition of that place then, the surface of it?

A. Well, it had been covered to some extent by deposit from the high water of 1861-2.

Q. Well, not speaking about



that but what was the appearance when you went there

A. In regard to agricultural purposes.

Q. Yes sir? A. Well, I cultivated it

Q. Well, what did you cultivate it in? A. I cultivate it for corn and for hay, alfalfa and oats.

Q. Now, when did you say it was first covered the land that you cultivated with sand?

A. Well, this coarse sand was deposited there first two years ago

Q. That coarse gray sand?

A. No sir, not so coarse as that; that sand was deposited there last winter (No. 7). The material deposited before that, that is the year before that was very much finer, a kind of loam that we used to plow and cultivate.

Mr Catlin. Deposited two years ago? A. Yes sir, two years ago



Mr. Cadevalader. The heavy sand was deposited last winter, the last coating was different from all previous coatings?

A. Yes sir, we never were able to get sand until last winter.

Q. That is what you call a fine quality of building sand?

A. Yes sir.

Q. How does it compare with the sand you find now at the mouth of the American River in that bar?

A. I do not know I have not been there during two or three years.

Q. Let me ask you another question. You recollect the flood of 1862?

A. Yes sir.

Q. Did you live on M. street at that time?

A. At the time of the flood I lived below R. street. I lived between S. and T. - 9<sup>th</sup> and 10<sup>th</sup>. I had formerly lived on M. street and moved there just in time of the flood and moved back to M. street and lived there



Continuously since

2. Do you recollect whether the flood of 1862 made much of a deposit in that section of the Country? A. In what section?

2. Below R Street, near 10<sup>th</sup>? A. Yes sir - well sir it covered the surface down there from one to three or four feet deep.

2. What kind of material?

A. It was a kind of loam, fine loam

2. How does it compare with that grey sand?

A. Well, it was nothing like it all. It has a sort of pudding cast, used here as long as they were allowed to take it away from within the City limits, for filling lots, and it was taken to be good soil

2. How does it compare with the stuff that composes the bar of the Sacramento river - how does it compare with the stuff that has been deposited in the last two or three years on the Gold side

below the mouth of the American. A. It was much finer. We reckoned it as soil and this is fine dry sand. The deposit left the flood of 1862 was a kind of clay loam.

412145



Q- Were you over the American River in early times

A- Yes I crossed the American River in 1850.

Q- You recollect the condition of the water and the banks there as to clearness and cultivation

A- Yes, the water was clear I crossed at. I forded the American River.

Q- You recollect it up to 1861-2

A- Yes

Q- Were you in the habit of seeing it frequently

A- Yes

Q- What did you go there for

A- Well I crossed it for different purposes. Sometimes I used to go hunting and sometimes I used to go for wood.

Q- What was its condition up to 1861-2?

A- In regard to filling?

Q- Yes?

A- Well there had not been any filling of any consequence that I could see. The banks were very steep and high.

Q- What was the condition of the water as compared, within



say the last five or six years

A- The water was clear

Q- Have you see the water coming down the American River during the flood stages of the last ten years

A- Yes.

Q- Have you had a chance to look at it? A- Yes

Q- Did you take it up in buckets, or anything of that kind?

A- Well I never ~~took~~ it up in a bucket but I have examined it.

Q- You have seen it flowing passed you? A- Yes

Q- How was it for mud and sand?

A- It seemed to be very thick with mud.

Q- How deep - what quantity would be mud and what quantity would be water

A- Well I have no way of determining that

Q- Well about?

A- It seemed to be at times as full of mud as you put mud



in a bucket and stir it with a stick. There seemed to be as much in the water as it could contain. I suppose it was settling all the time.

Q - From where does the City of Sacramento take its water?

A - It takes it from the Sacramento River.

Q - How long since it pumped it into the tanks before distributing it.

A - Well the old water works were established here in 1852 from that time up to the adoption of the Holly Water works, the whole system -

Q - (Intg) Where was the tank

A - At the present water works building at Front and I streets

Q - What was its size?

A - I do not know the size, really

Q - Did you ever notice the water in that tank since 1862

A - Yes I have I have been up



there.

2- How often did they have to clean it out?

A- Well it seems to me, they run the water off there every two or three months.

2- How much mud would there generally be in the bottom of the tank?

A- Well I think from one and a half to two feet.

2- There would be from one and a half to two foot of mud

A- Yes Sir.

2- When did the water become noticeably bad in this town?

A- Since 1862.

2- Since 1862. How was it in 1870, as compared?

A- I could not see much difference.

2- How has it been for the last ten years? You mean there was no difference after the flood of 1862 down to 1870?

A- Well since the flood of 1862 I have not noticed



any particular difference

Q- What has been its general character

A- Well it has been muddy.

Q- How muddy?

A- Well the water ~~has~~ is generally unless it has been settled - It is of a - it is about the color of cider.

Q- Could it be used for washing purposes without settling?

A- No Sir I think not.

Q- Have you noticed any change in the condition of the water this year?

A- Yes.

Q- Say since -

Mr. W. B. Belcher - Let him say since when.

Mr. Leadwaler - I was going to fix the time.

Mr. Leadwaler - Q- Say from since the first of June?

Mr. Belcher objected to the question upon the ground that it was leading.

The court permitted the question



to be asked.

A- Yes I have

Q- How is it ~~here~~<sup>now</sup> compared with <sup>the</sup> five or six previous years?

A- It has been very much clearer

Q- Is that exemption from mud this year, or sediment since the first of June of this year, been very noticeable

A- Yes.

Q- How would it show itself

A- Well we use at our house we use what we call "Sacramento straight", we do not filter - I observed that, in drawing the water from the hydrant -

Q- You noticed it in the water carts around town?

A- No Sir I do not know that I have. I have not much to do with the water-carts

Q- You recollect the water that came through the Lonedale break

A- Yes

Q- You recollect the deposit



that it made upon the adjacent lands?

A- Well No. I do not think I noticed that, Mr. Badwalader, I remember the break there. I paid not attention to the character of the deposit.

Q- Did you notice how much of the Riverside road the water from the break covered?

A- No Sir. I was never down the Riverside road during that time.

Q- Did you notice what portion of the City Cemetery was covered?

A- Well the lower portion of the Cemetery was covered - Well I do not know. I could not state just how far up on the Cemetery it covered, but it covered a portion at least.

Q- Did you notice the pumping arrangements last Spring on the Y street levee?

The Court - I think I will have to limit the number of witnesses, that will be called



to the subject of the general overflows at Sacramento City and on some of these other questions.

Q- Was your attention called particularly to the floods produced by the water coming ~~through~~<sup>from</sup> the Suedale break in 1878 and from the Mesick and Fern breaks in 1881?

A- Well I was down in the flooded district, there, at least, on the levee ~~there~~<sup>over</sup>, looking it

Q- Well how often?

A- Some three or four times during the overflow in each season.

Q- Did you ever notice any effect produced by the wind upon the water? A- Yes.

Q- Between Paul Y struts?

A- Yes.

Q- Then what was that effect?

A- Well the wind would produce waves, the same as on any other water.

Q- What effect did that have on the levees?



A - Well the waves would dash up against the levees and recede again, and injured the levee to some extent.

Q - With it endanger the city?

A - Well at one time there was considerable some danger

## Crop Examination of Archibald Kenley

Mr. Battin - Q - You mean some danger of the A street levee giving away, from being washed by the water when that south wind blew

A - Yes

Q - Is that what you referred to?

A - Yes. That the action of the waves, that seemed to be cutting it away.

Q - Mr. Kenley when was the first, that the pumps were down in the lower part of the city to pump the water



over the R Street levee? how early was the earliest, that that was done?

A- Well I do not know that I could state Mr. Ballin. I think in 1878 they pumped there but whether the water had been pumped over prior to that <sup>not</sup> or, I do not know.

Q- Do you not remember that before 1860, that at one ~~time~~ or more times the City pumped the water out of the lower part of the City over the R street levee? and I will try to remind you of what I suppose to be the fact of it. One time William I. Long, who was a practicing Attorney-at-Law of this City took a contract to pump the water out, and did do so, or attempted to do so, You remember that circumstance?

A- I have some indistinct recollection of the Mr. Ballin  
Q- I want you to remember



A- I have some indistinct recollection of it.

Q- Do you remember that William S. Lang undertook a contract to pump the water out of the lower part of the City?

A- Yes

Q- State as near as you can about when that was?

A- Well I have no very distinct recollection about it I have merely - I remember that there was such a contract let to Mr. Lang, but what the extent of the water was at that time I do not know.

Q- I am not asking you about the extent of the water I am trying to bring you to the time when that was. Was that before 1860?

A- Well if at all, it must have been before that

Q- I will ask you whether you do not remember that on more than one occasion in the Spring prior to 1860, of this City having in employment



of agents or contractors to pump the water from the lower part of the city over the R street levee.

A- I have no distinct recollection of any pumping prior to that. I have an indistinct recollection, however, of some pumping arrangement in connection with my acre but what the extent of it is or was I do not know.

Q- I will ask you whether the water did not almost every year prior to 1860, flood over the <sup>lots</sup> ~~leaves~~ in the lower part of the city near R street inside of the R street levee.

A- I have no recollection that that was the case Mr. Bathin.

Q- Have you never seen ~~the~~ water standing, in the spring of the year on the lots on P street and Q street, between 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> streets prior to 1860?

A- In hard rains I have seen the water on the surface.

Q- Have you not seen it



there in the Spring of the year when there was no rain in April or May?

A - No Sir, not so late as April or May.

2 - What part of the City did you live in between 1850 and 1860?

A - I lived about three years below the R street line.

2 - How near high up?

A - Well it was between S and T and 9<sup>th</sup> and 10<sup>th</sup> streets.

2 - How far to the east? How far to the eastward, as high as 10<sup>th</sup> street or 9<sup>th</sup>?

A - Well I occupied a block of ground down there between those streets.

2 - Name the blocks?

A - S and T, 9<sup>th</sup> and 10<sup>th</sup> streets, my buildings were near 9<sup>th</sup> street and 10<sup>th</sup> street.

2 - When did you say you came to the City, what time of the year in 1850?

A - September?

2 - September, 1850?



A- Yes.

Q- How your land adjoins Hoagland's land on the other side of the river

A- Yes

Q- In 1867-8 when the American river broke through the bank on the opposite side and ran over Mr. Hoagland's, did it not also run over this land, which you have now, and which you obtained in 1874?

A- I presume it did, I was not there.

Q- Could not you see the deposit that it left on it?

A- Yes

Q- How deep were the deposits there when you first came there

A- When I excavated there to make my brickyard - the floor to lay out bricks, I excavated to the black soil

Q- I suppose you did but I asked you how deep it was?



A - I was going to tell you  
 Q - Tell me that first?

A - It was from one to two feet deep. It varied in its depth in a space of three hundred feet square

Q - How much land did you cultivate there, how many acres?

A - Well I would think about 25. I never had it measured.

Q - Was that good soil that was left there by the floods?

A - Yes, mostly.

Q - You say it was a finer kind of sand than that which came down last winter?

A - Yes.

Q - Was it a sand? Was it pure sand or was it mixed with sediment?

A - It was mixed with sediment, mixed with apparently clay soil

Q - Did it produce well?

A - Yes it produced very well.



Q - How deep was the deposit of that you cultivated?

A - Well on some portions of it there was no sediment it was black soil a small portion, other portions of it would be a foot to a foot and a half in depth.

Q - From a foot to a foot and a half? A - Yes.

Q - You said you raised corn, alfalfa and oats did you raise anything else?

A - Well ~~that~~ we raised vegetables.

Q - Did you raise potatoes?

A - Well we had potatoes and cabbage.

Q - Did you have both kinds, sweet potatoes and Irish?

A - No Sir, we did not put in sweet potatoes.

Q - Did ~~you~~ understand you Mr. Keeley as saying that the water of the Sacramento and American Rivers was clear water up.



to 1862?

A - Yes that is what I mean to say.

Q - And it was right clear water up to 1862? A - Yes.

Q - It was not colored at all? A - That is

my recollection, that it was not colored.

Q - In neither of the Rivers?

A - No.

Q - During the last two years you say the water broke through on the Yolo side and came over your land and the other lands adjoining you I suppose?

A - Yes.

Q - From what breakes did it come in, what were the names of the breakes? What were the names by which the breakes were there known?

A - Well the breakes of last winter and a year ago was at two points, that is two years ago this winter it was at two points, one



just a little above the town of Washington and then next above, that it broke through a strip of land owned by Mr. Todhunter as I understand.

That is above Nevagland's place Nevagland's place intervened between the breaks.

Q - How many breaks are there in the levee on the Nolo side of the Sacramento River from Washington up to and inclusive of the break known as the English break?

A - Well I think they have all been repaired.

Q - I did not ask you that question whether they had been repaired. I asked you how many breaks there had been there. There was up to an inclusive of the English break?

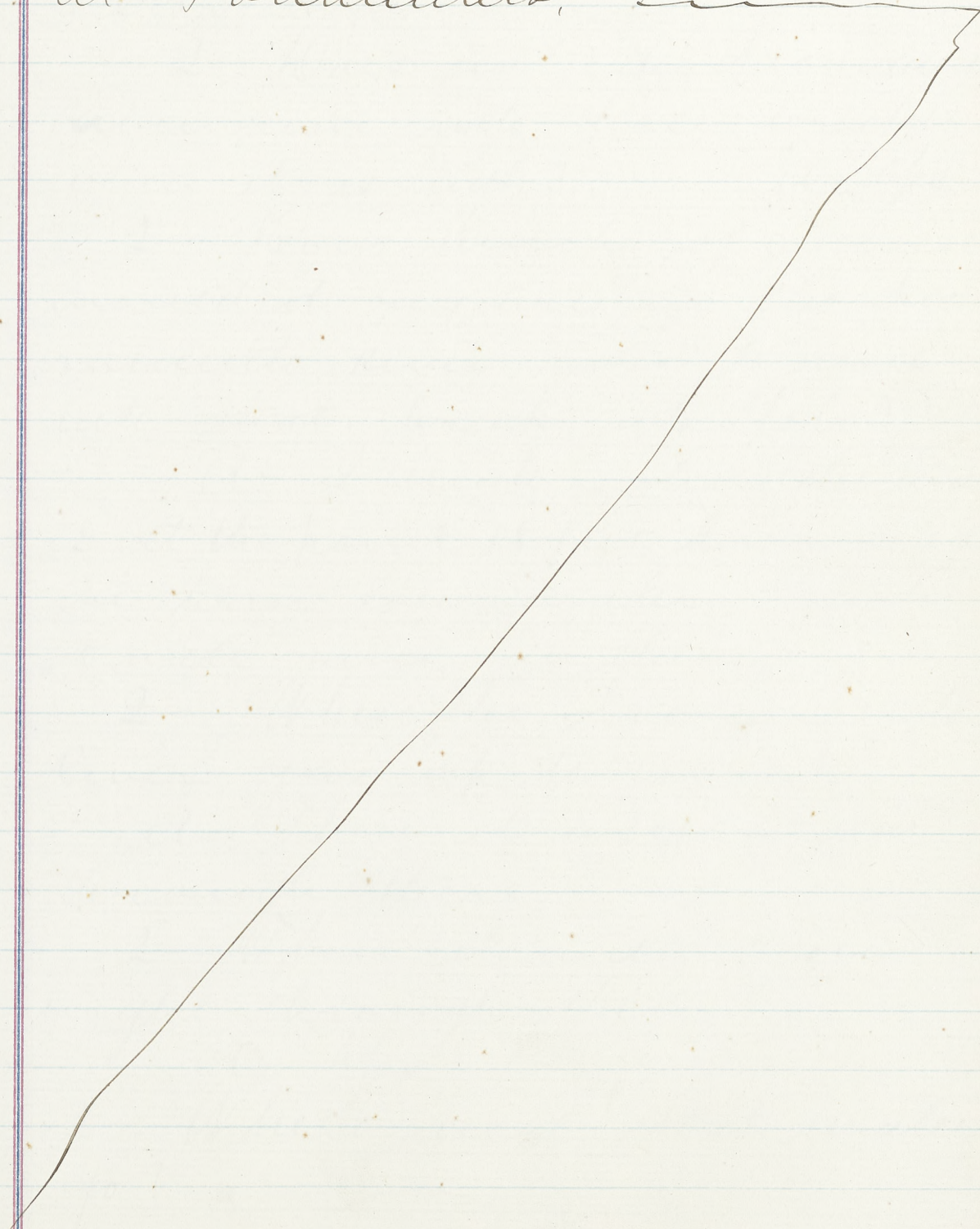
A - Well I could not say there was quite a number

Q - How many do you mean



by quite a number?

A- Well the water topped the fence all along ~~for~~ very nearly all the way to the English break. It topped the fence at Brytts and below at Bell's place and at Todhunter's.





2- They have left the breakers above Washington open. They have made no attempt to repair that?

A- There are two breakers above Washington that are left open. They made no attempt to stop them.

2- Does not the Sacramento River run into these breakers when it is high? A- Yes

2- How much of a raise would it require in the Sacramento River now to run into that break, into Yolo?

A- I think when the water is at the point 18 feet above what we term low water mark; it will run in there.

2- When the Sacramento River goes up to 18 feet?

A- Then it will flow through there.

2- Then it will flow right through there?

A- Yes.

2- Where will that water go?



A- Well it goes off down in the tule basin, between there and Rio Vista

2- Now was not there a big flood there in 1878? The winter of 1878 when the railroad track was destroyed very extensively between Washington and Davisville?

A- Well if that was in 1878- if that big flood was in 1878 that was the case. I think that was the time.

2- Did not the water back up ~~the~~ over your land?

A- Well it ran through my land.

2- It ran through your land?

A- Yes

2- There it has ran over your land every winter since 1878?

A- No Sir, they repaired the levees, and they resisted during one season

2- Which season was that?

A- If that was in 1878, It must have been in 1879



2- With the exception of one season it has run over your land and over this adjoining land every winter since?

A- Yes

2- Now you say the sand that is on your land is coarse sand which comes from the American river?

A- Yes that is my impression

2- Might it not have come through from the Sacramento?

A- Possibly some of it may have.

2- Well why do you say American river any more than Sacramento river?

A- Well simply because the deposit - the material deposited above the breakers is of a much finer quality than this.

2- Above the breakers on the Sacramento you mean

A- Yes.

Mr. Cadwalader-2- That is the Sacramento River deposit?



Mr. Battin - 2 - Now this coarse sand when did it first make its appearance. I mean this sand that you called good building sand?

A - Well the deposit of last winter was the first that deposited that coarse material

2 - You selected this as a specimen of the coarse sand that is good for building purposes which first came on to your land last winter?

A - Yes. I took that from a pile of sand that we are hauling out for winter and spring use and have left here in the vacant lot next to the new Hall of Records.

2 - Having last winter the deposits were all of a finer quality of sand mixed with sediment?

A - Yes.

2 - And as I understood you that it could be utilized



for the purpose of 'sail'?

A - Yes

Mr. Leavelle - He didn't say that.

The Witness - I do say so.

Q - You said that there was no escape for the water of last winter below R street except by pumping? Suppose the Freeport levee had been opened or removed would not the water have drained off very rapidly?

A - Well not rapidly enough to have freed that section from -

Q - (Intg) As a matter of fact was not the drainage below R street effected by the opening of the Freeport levee last winter?

A - I think it was.

Q - Instead of by the pumps?

A - I think it was.

Q - Now didn't the water come over the surface the original surface of the City here frequently, in the



Winter prior to 1862?

A- Well on occasions of very ~~light~~ heavy rains the water would stand on the surface.

Q- Well on occasions when there were heavy floods how then?

A- Well of course the water used to stand on the surface when the city was flooded.

Q- How was it in the winter of 1852, 3?

A- Well I was not here - in the winter of 1853 I was here. The City was flooded that winter.

Q- In January 1853? A- Yes.

Q- Did not the water stand on the surface here from late in the Spring on the low lots in the city?

A- Yes.

Q- Did not what we call seepage water before 1860 when the spring flood made <sup>the</sup> Sacramento river



very high — Did not the seepage water come up to the surface ~~there~~ over large portions of this city?

A — My impression is not As I understand seepage water it is that water that seeps through by reason of the river being high.

Q — Did not you frequently before 1860 see that water in the low places in the town — ~~light~~ <sup>light</sup> colored water that was supposed to raise with the raise of the water of the river?

A — I never observed that.

Q — You never say any of that?

A — I never observed that — anything that we thought or what what called seepage water prior to that year.

Q — How long did the water stand here in the winter of 1862 after the big flood. How long did the water stand here on the low lots and the low portions of



the city?

A- Well I could not say just how long. I left the city and went to Nevada about the first of May and I do not know of my own knowledge as to that.

Q- Didn't the water used to go into the old cellars where the houses had old cellars prior to the raising of the grade of the city - that was before 1861-2.

A- I think not. I know that they used to have cellars here.

Q- Didn't those cellars used to fill up frequently in the spring?

A- No Sir I think not.

## Redirect Examination of Archibald Keenley

Mr. Badewalcker - 2- 20  
you want to be understood  
as saying that you could



grow anything of this sand that came out of the river?

A - Which!

Q - This gray sand?

A - No Sir I do not think it will grow anything but burrs and willows.

Q - You have not tried to grow anything except in the stuff that you found on your place when you went there seven years ago?

A - No Sir I have abandoned the cultivation of my place altogether.

Q - When in cultivation your place was the sediment so deep that a plow would not reach the original soil?

A - No Sir of course not.

Q - You always got some of the original soil?

A - Yes.

Q - What was the original soil there?

A - It was a black loam such as is found generally



on the surface of the bottoms.

2 - You were speaking about the water standing on the lots in 1852 what lots do you refer to. A - In 1852?

Mr. Battin - He didn't say so.  
Mr. Leadwaler - 2 - I understood you to say that no inconvenience came from either seepage -

Mr. Battin - objected to the question because it was leading.

The Court - If he has said it once it is enough without repeating it.

Mr. Leadwaler - 2 - You were talking about its going through the Freeport levee do you know anything about that?

A - No Sir only from hearsay.

2 - You do not know what effect that had at all?

A - No Sir

2 - And what did you mean by saying, that



this city could not be drained unless this levee could have been cut at Freeport?

A - I do not think I said that.

Q - You do not intend to say that do you?

A - I do not think I did say so.

Q - You say the pumps were working trying to free the City from water?

Mr. Leattie - He has been all over that.

The court - There is no use of his repeating that.

The court here took a recess until 2 o'clock P. M.



In the Superior Court  
of the State of California  
in and for the County of  
Sacramento

|                                          |                                    |
|------------------------------------------|------------------------------------|
| The People of the State<br>of California | } Afternoon Session                |
| vs.                                      |                                    |
| The Gold Run Ditch<br>and Mining Company | Monday<br>Nov. 28 <sup>th</sup> 81 |

## Transcript of Testimony Vol.

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Winfield J. Davis  
Official Reporter



# Re-crop Examination of A. Stanley

Mr. Catlin. I will ask you whether the crops on this tract of land of yours over there were not injured in 1873 or 1876 by the backwater from the tules.

A. Yes. Portions of them I think were injured on the Coon-Est land.

Q. When the levee ~~broke~~ broke at the great break north of Washington last winter did that break take away the whole body of the levee itself?

A. Yes. It may be said to have taken away the whole body of the levee.

Q. Did it also cut into and take away a portion of the natural soil upon which the original levee was created?

A. It cut it out near the river in gullies.

Q. To what depth?



A. Well running I think from a few inches down to probably a foot or a foot and a half in depth until it ran out to a certain point, and when it ran out it flooded over a certain surface, to a slough.

2. Upon the immediate bank of the river where the levee was built how far did that break cut away the natural soil and how deep?

A. Well, I think it did not cut away very much of it. It cut through as I told you in gullies, leaving it uneven.

2. About what depth did it cut into that natural soil?

A. Immediately where the levee stood it may have cut into the natural soil a couple of feet. I think not more than that.

2. Where was that material carried to? was that partly distributed on your land?

A. - Sir?

2. Where was the material



that was washed away by that break carried to? partly on your land? A. Well, I could not say, I would think not, however, from the character of the deposit on my place. I think that the wash from the river and from the break itself would be of a different character of material from what I found on my place.

2. Did not the current pass right over your land?

A. Yes, apparently

2. And passed through that break?

A. The left of the current did not. There is a slough that comes in just above the town of Washington and runs off to the railroad in a south west direction from the break; to the first little trestle work down there

2. On whose land was that material deposited that was carried off by the break?

A. Well, a portion of it may have been left on mine.



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Sworn think however the by-  
far portion of it must have been  
washed down into the tules;  
down into the tule basin

---

" "

Testimony  
of  
George Little

Called for plaintiff

Sworn

Mr. Hart. Where do you live?

A. I reside about half or  
three quarters of a mile north  
of the Sushersin bridge at  
Holcom.

Q. How long have you lived  
there? A. I have lived

there in that vicinity since  
1851; not exactly in the same  
place ~~I have reference to the~~

Q. Do you remember what  
time in 1851? A. I think  
it was in August when I  
came, the latter part of  
August.



Q. How far from the banks of the American River do you live?  
A. In 1851 I

lived on what was called Negro Bar at that time, that was immediately opposite the town of Folsom on the bank of the river.

Q. And since that time how far from the banks of the river?  
A. To the present time from 1853 I have lived close to the banks of the river opposite Folsom.

Q. About how far?

A. From the river.

Q. Yes. A. Well, my house would be about 75 yards from the edge of the river I should think.

Q. How far is the town of Folsom from the City of Sacramento, following the river?  
A. By the river?

Q. Yes. A. I do not know the distance by the river.

Q. How far is it following a direct line?



A. They call it about 20 miles, I believe

Q. What has been your occupation up there?

A. What is at the present time?

Q. What has been your occupation up there, I say?

A. Mining, principally, up to the past ten years

Q. Did you ever pursue any other occupation there?

A. Yes I kept store and kept the Ferry

Q. How long did you keep the Ferry and when did you keep it?

A. In 1853 I bought a place there, with a Ferry attached to it, right on what was called the mouth of Big Gulch, a ravine going up there?

Q. How long did you continue to run that ferry after 1853?

A. I think up to 1855 or 1856 and until later

Q. Where did your ferry run to?

A. It ran right across from the north to the



South side of the river. There was no bridge at that time, and that was the only mode of crossing the river between Johnson and the north side of the American river.

Q. By what means did you cross your ferry?

A. By a small boat.

Q. You pulled it by a small boat?

A. Yes. It was only for passengers.

Q. Did you not have a large ferry-boat too?

A. Yes, there was one some time after that; But it did not belong to me; it belonged to Stockton who had a flour mill about two miles above there. He had it built for the purpose of taking across flour and grain. During the time of the first ~~break~~ across the American River it was washed away; a few months after.

Q. When did you first see the American River after your



Settlement in Dolson?

Q. In the latter End of August 1854

Q. What kind of banks did the stream have at Dolson?

A. Well, on the north side the banks were considerably steep, almost perpendicular, in some places below. On the south side, on the Dolson side there was quite a large bar extending apparently from there <sup>about</sup> ~~about~~ half a mile - from the edge of the river - portions of it. And some portions, the upper portions, were quite close to the bluff. But the center of the bar I should think was about three quarters of a mile to the edge of the river.

Q. What kind of a bar was that? A. It was a bar that was ~~was~~ mined.

Q. What? A. It was mining ground; it was all mined for gold; it was called a bar.

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Q. What kind of soil was it?



A. It was all gravel and sand mixed

Q. What was the character of the bed of the river at that time

A. As far as I could judge it was a rocky bottom, gravelly; coarse gravel and rock

Q. Were the rocks large or small?

A. Well, not very large that I saw

Q. How far up the stream are you acquainted with the bed of the river?

A. Well, I have been up the north fork as far as Auburn, but I am not much acquainted with the stream many miles above Nelson.

Up to the junction of the south fork I know it pretty well

Q. When did you become acquainted with the bed of the stream up as far as the junction of the south fork?

A. I have only by coasting up along the banks of the river, that is all

Q. But when did you become acquainted with it, with the



Stream that far up?

A. About 1857 and 1858.

Q. That was about the first time you went up there?

A. I think so. I do not think I had been up very far before 1868; I mean to say 1857 or 1858.

Q. How far is it from Holston to the South Fork of the American river?

A. By the river?

Q. Yes. A. I should think about three miles.

Q. State whether or not you ever went up farther than that to the Middle Fork?

A. No. I never went up the Middle Fork.

Q. Were you ever at the Middle Fork?

A. Yes.

Q. When was that?

A. It may have been a year or two later.

Q. A year or two later that what?

A. I saw the period I started I had been up the North Fork. It may have been about 1859 or 1860 or somewhere along there



Q. What is the nature of the country east of Folsom as you go up the river?

A. Well, it ~~is~~ sort of mountainous; all mountainous land, high land.

Q. Where do the mountains commence?  
A. Just immediately above Folsom they begin to rise.

Q. How far above Folsom?

A. Just immediately adjoining the town I think that the ground begins to rise gradually.

Q. What kind of mountains are there immediately above Folsom on the river?

A. There is some timber on them - pine.

Q. Are they large or small?

A. Not very large; small.

Q. How is that?

A. Small rolling hills.

Q. How do they become as you go farther up the river?

A. They get higher as you ascend the river.

Q. Does the fact that the



river is running through the mountains make any difference in its bed so far as its fall is concerned at that point? A. I think not.

Q. Do you know any thing about what the fall of the river is immediately above Folsom? A. I do not.

Q. How far south of the town of Folsom are you acquainted with the river?

A. I have not any particular acquaintance with that portion of the river, only almost immediately in the vicinity of Folsom as far as I have walked, I have travelled over it.

Q. Have you ever travelled down the river? A. Yes, a little way.

Q. How far? A. Not very far, seven or eight miles.

Q. You know of any body else here that you travelled <sup>to</sup> through

A. I have gone through Mississippi Bar, and several mining camps on the river there.



Q. Are there any farms there

A. I have not seen any lately right in the edge of the river

Q. Do you know Taylor farm?

A. No, I do not

Q. John Taylor? A. I do not.

Q. What is the nature of the banks of the American river above Colson, as you go through the mountains to the North Fork?

A. It is all an open cañon. The river is confined between two very steep bluffs of rock nearly all the distance

Q. How wide is the cañon as you go up?

A. Some parts of it, I should think it is as narrow as one hundred feet and extends to two hundred feet wide, it may be a little more

Q. Mountains on either side?

A. Yes, high bluffs of rock

Q. All the way?

A. Yes, high bluffs of rock

Q. How is that?



A. all the way up the North Fork to where it comes into the South Fork.

Q. What is the Nature of the bed of the river, and what was in 1856-7-8 when you went up there first?

A. I could not see the bed of the river; I could not see what the bed was

Q. Did you go close to the river at any place there?

A. Not immediately there, I have farther down.

Q. How? A. I have farther down been on the bed of the river and mined in it

Q. How far down?

A. About a mile, a mile and a half, or two miles above Tolson.

Q. What kind of a bed as the river have there?

A. It had boulders, small boulders and gravel

Q. How large were the boulders?

A. They were different sizes

Q. Ranging from what to what?



A. Some you could lift easily. Some you could not lift. Some were as large as your head. Some were smaller and some larger, as you could naturally find in the bed of a river.

2. Down as far ~~as~~ below Dolsom as you have gone, Eight miles, what was the nature of the banks, in 1851 and 1852 and from that time ~~on~~ up?

A. Well, the bed of the river did not seem to be filled up at all as far as I went down.

2. How? A. The bed of the river at that date - in 1851 you say - did not seem to be filled up any, only on the North side where, as I have stated, the banks were very high and steep until you got down to what is called Mississippi Bar and then it was lower down some way.

2. How were the South banks of the river between Dolsom and this point, Eight miles



West of Tolson or down the river?

A. They are not so high as on the north side; a good deal lower.

2. Where was the channel of the river in reference to the bank, that is, in summer time?

A. When I lived on the side of the river it was close to the bank on the north side opposite Tolson; the original channel was at that time.

2. Right above Tolson for a quarter of a mile what is the nature of the river?

A. Well, it is all a dead level nearly.

Mr. Catlin. What do you say?

A. I say the nature of the bed of the river is almost a dead fall.

Mr. Hunt. A dead fall?

A. I mean to say it is level, that the river is level; that there is very little fall to the river.



it is filled up so.

Q. That is right above the town of Folsom? A. Yes.

Q. How is it above that?

A. There is not much fall to the river for two or three miles up.

Q. From there up how is it?

A. I do not know. I have not been there for a number of years and could not state.

Q. How far up was the water clear from 1853 on up as far as you remember? that is up to 1857, say?

A. Well, in 1853 it was pretty clear. In 1854 the river was quite clear. I think up to about 1858 the river was tolerably clear.

Q. Tolerably clear?

A. Yes, tolerably clear. In 1854 it was quite clear, but little mud in it.

Q. How clear was the water in 1854?

A. Well, you could distinguish the bottom of the river in a good many places.



Q. How is that?

A. You could distinguish the bottom of the river.

Q. How deep was the river there?

A. Different depths. Where I had the ferry boat it would probably be twenty feet deep - the water at that time.

Q. And above and below that?

A. Above that there was a rapid which was shallow.

Q. A rapid?

A. Yes.

Q. What do you mean by a rapid?

A. I mean there was quite a fall to the river.

Q. Above that?

A. Above that.

Q. And below that?

A. Below that where the boat was it was still; the water was still. And then quarter of a mile or less below that there began another fall - what we call a riffle - a slighter fall than the one above.

Q. How long was this rapid you speak of immediately



Above where your ferry was?

A. Probably it was about four or five hundred yards

2. How long was the riffle which you speak of below?

A. I think it was shorter; probably not exceeding two or three hundred yards it seems to me

2. Could you approximate or estimate or describe how rapidly the water ran down this place which you call a rapid immediately above your ferry?

A. I could not tell the speed that the water would run but it was a very steep rapid

2. The water ran very fast

A. Very fast

2. How stiff was the current at your place, at your ferry?

A. Well, in the low stage of water it was almost lost. There was very little current after you got to the foot of the rapid until you got a couple of hundred yards down and the water began to run faster



where there was a little fall  
in the river. But in the neigh-  
borhood there the water was  
still

Q. In the winter time how  
was the water there at your  
place? A. Well, it was  
pretty swift

Q. How does the water in the  
American River at Folsom at  
the present time compare with  
the water in 1851. When you  
went there?

A. The water at the present  
time is about as muddy as  
it can be and in 1851 it was  
almost clear

Q. When did you first notice  
that it began getting muddy?

A. I can't remember rightly  
it was somewhere about 1858  
or may be 1860

Q. How muddy did it become  
in 1858 as compared to the pres-  
ent time? A. It was not  
one half as muddy then at  
that time as it is now

Q. When did it increase so



as to come up to its present condition as for mud

A. I think it has been in nearly the same condition for these last five years; a little worse if any thing

Q. What is the nature of the material that comes down in the water there?

A. Well it gravel, sand, mud.

Q. What kind of mud?

A. Well, I see what is deposited on the sides of the river when the water recedes is a sort of yellow clay

Q. Yellow Clay?

A. Yes, and in some parts sand

Q. Is it more sand or more clay at this time? is it more sand or more clay now?

A. In some places you see nearly all sand and in some all clay

Q. How does the clay you speak of compare with that (showing No. 5)?

A. Probably when it was dry like that, it might be nearly the same color.



But when I see it, it is more  
of a yellow color than that

Q. What kind of sand comes  
down? A. A sort of grey  
colored sand

Q. Is it coarse or fine?

A. Notably coarse I think

Q. Look at the bottle marked  
"Coarse sand deposited by the  
river on land of W. H. Hodgdon"  
and see if you find any of that  
kind there coming down the river?

A. Not exactly like that.  
I think that is more like the  
deposit there (No. 6)

Q. That is marked "Sand  
found on bar between old  
mouth and new mouth of the  
American River"? A. Yes,

Q. You think that is more like  
it do you? A. Yes. I think  
that looks more like it

Q. Look at that bottle marked  
"No 4. A. J. G." and see how  
the sand there compares with  
the sand which comes  
down the American  
River?



A. I do not see very <sup>2229</sup>  
much difference be-  
tween that and that other.  
That is not so fine  
as this. It is coarser  
than this, somewhat  
coarser



Q. How about that Gray Sand deposited in river on land of W. Hodgdon?

A. I think that is very like the portion of sand deposited along the river right near where I live.

Q. When did this sand first commence coming down stream from above?

A. I think about '68. I do not recollect the particular date when it began to come.

Q. Is that year, '68, the first year noticed of it?

A. I '68 I think would be about the first time I took any notice to any filling up.

Q. How deep were the banks in '51 opposite Galena?

A. On the north side the banks would be about thirty feet probably, not exactly the banks of the river, but there is a



bluff. There is a table land right above that. That is what I am referring to. The bank of the river from this bluff sloped gradually towards the river.

Q. About 30 feet?

A. About 30 feet to the top of the bluff from where I had the berry.

Q. About what was the average depth of the bank? - I mean at low water mark - over the immediate neighborhood, say, at Halsam bar 3 or 4 miles up and down the river?

A. It is hard to give a proper estimate because it covered so much. Every little way the banks vary.

Q. In some places how high?

A. In some places 50 and 60 feet, and others 20 or 30 feet.

Q. And others places how



high

A. About 25 or 30 feet.

Q. How far up the river have you seen this sand and sediment coming down?

A. I have examined it up some ways. I have noticed it. I have not gone far for the purpose of examination but I have seen it deposited up about where the old mill site was. What is called the granite mill, the blanner mill, Mr Cadwalader. The mill of Hooper and Co? A.

Mr Stark - How far is that above Halsam?

A. Only about a mile or a mile and a half I should say.

Q. When you were at the north bank of the American River did you notice the water up there?

A. Yes.

Q. What was its color?

A. What is it at the present



time?

Q. When you were up there several years ago, I ask,

A. It was muddy

Q. In 1868?

A. Yes. It was colored then

Q. What was the color of the water or about what color was it?

A. There was a little yellow tinge to it. There was not very much color to it at that time.

Q. In which stream?

A. In the north fork, I have reference to. I do not know anything about the other forks; I never have been on them.

Q. You have been up to where the south fork puts in? A. Yes.

Q. Did you notice whether or not this mud was coming from a point north of the south fork?

A. What?



Q Whether it was coming down the river <sup>abusee the</sup> at that time south fork.

A. I did not observe.

Q. You saw the water of the north fork above the south fork, did you not?

A. Yes.

Q. What was the color of the water there?

A. It was discolored; somewhat yellow.

Q. About how thick would you say the mud was?

A. It was not very thick at that time.

Q. That was in '68? A. Yes.

Q. Since that time have you seen it up there? A. Yes.

Q. How was it then?

A. I have seen it very lately. I have been up about 20 miles.

Q. How lately?

A. Within the last 3 or 4 months.

Q. Did you see it where that levee was that time and



'68?

A. Yes, that a portion of it,

Q. That is up north

A. Yes, I have been north of the mouth of the Smith fork

Q. East I mean? That is above? A. Yes.

Q. What was the color of the water then?

A. It was muddy a little.

Q. Very muddy or only slightly muddy?

A. Not extraordinarily muddy,

Q. What?

A. Not very muddy at that time.

Q. What was its color?

A. It was a yellow color.

Q. When was that? A. About '68

Q. But I mean after '68?

A. Oh, I stated that I had been up there about four months ago.

Q. But I asked you if you had been up there before? Between that time been



months ago and 1868?

A. I think in all probability I have. I do not remember exactly, I have been up the river a good many times, I do not remember the dates, But between those two dates I have been along the river on a portion of it several times

Q. What was the color of the water between those two dates?

A. A yellowish color

Q. Much mud in it?

A. Yes Considerable I think,

Q. When do you say was the first time you went up the river after '68? A. I do not remember, I have been up it a good many times but do not remember the dates.

Q. Did you notice whether or not the amount of mud in the stream was increasing or decreasing after '68 up there?

A. I did not notice



Q. Did you notice the banks of the stream?

A. No, I did not pay any particular attention to the banks of the stream. The river is confined between two bluffs.

Q. Did you go into the water there?

A. No I did not go into the water.

Q. Did you undertake to drink any of it? A. No.

Q. Did you notice the south bank of the American River at its mouth?

A. Yes, I have seen that too.

Q. What kind of water comes down there?

A. That is also muddy.

Q. The same kind of mud?

A. Yes, About the same color.

Q. How far up the river have you noticed sand coming down?

A. As far as I have been up on the north bank, which is over 20 miles



Q. Now have seen the sand coming down?

A. I have seen the sand on the banks of the river?

Q. What kind of sand?

A. A lightish colored sand

Q. The same kind you have described?

A. No, there is some there that is some what lighter.

~~than~~ Any I have seen here: a lighter color.

Q. Was it coarse or fine?

A. It was about middling coarse.

Q. I am taking some from No 6? You think it is a lighter color than that?

A. Fully as light as that, coarser and of a lighter color.

Q. A lighter color than this?

A. Yes a lighter color and coarser.

Q. What <sup>difference</sup> condition has this sand and sediment coming down made in the bed of the river at Tulsa?



A. It has raised the bed of the river considerably a great deal.

Q. At Halesam? A. Yes.

Q. How much?

A. I think from old land marks that I remember of, it must have raised it from 20 to 25 feet.

Q. Has it made any difference in the summer time in the current of the stream?

A. Yes, that is it has changed

Q. How changed?

A. That is, the bed. The bed used to be on the north side across to the north bank, now it is on the south side, at the present time

Q. How wide is the deposit that is made in the river there? You say it is some twenty feet deep: how wide is it?

A. The deposit is right from one bluff to another in some places, up at the



upper portion, it is perhaps half a mile wide, and at the middle it is a mile, and so on. There is a deposit right clear across from one bluff to another.

Q When you first went there was there any of that kind of sand there?

A. None.

Q How far down the river does this deposit extend?

A. I can not say, because I have not been down along the river for a number of years, a good number of years - not over two or three miles down on the bank of the river.

Q. You have never been over three miles down?

A. No. Not on the bank of the river.

Q Was that sand deposited as far down as



again went A. Yes

Q. Saw bar up to your old berry?

A. All through that canon where the berry was, from the berry was to the bridge and where this rapid was, is now a dead level deposit.

Q. Where this rapid was is now on a dead level.

A. Yes.

Q. It has filled up the rapids.

A. Yes.

Q. When did you first notice that that rapid was filled up with sand?

A. It has been filled gradually. It took a number of years to fill it. I think probably it began about '63 or '64, and may be later. I do not know that I know the exact date.

Q. Has it been filling gradually ever since or was it all filled at once?

A. It has been filling gradually year by year.



Q. Can you notice each year a difference in the depth?

A. I think so. I think there is a difference every year.

Q. You know whether every year the first freshet that comes along ever has any effect upon this filling of the bed?

A. Well probably it would take out some of the deposit.

Q. It takes out some of the deposit?

A. I think so! Carries it down.

Q. Have you noticed that often?

A. Yes.

Q. How often?

A. Well after almost every flood, every winter it shows it to some extent.

Q. Then when does it fill up again? A. It would fill up during the course of the season again.

Q. Does it fill during the winter or during the summer time up there? A. Well it



Keeps on all the time in the summer - the billing.

Q. Did you ever during the time you have been there have occasion to take this water which was coming down from above, in a bucket or vessel of any kind?

A. Yes, I have many times.

Q. What did you find in the water?

A. I let it settle some time and quite a muddy sediment would settle in the bottom of the bucket.

Q. You say a whitish sand and muddy sediment?

A. I say a muddy sediment would be in the bottom of the bucket. If I let the water settle, there would be quite a lot of mud would settle in the bottom of the bucket.

Q. Did you find any sand in the water?

A. Yes I think there was some fine sand - very fine



Q. When did you first notice this? That is, that you could take it up in a bucket and let it settle?

A. I do not remember the time.

Q. Did you ever notice the proportions of sand and sediment in the water?

A. No, I do not know the exact proportions.

Q. Do you know how deep or about how deep the sediment settles in the bottom of the bucket? When you let the water settle?

A. I think in all probability, in a bucket of water at the present time, the sediment would be from one eighth to one quarter of an inch thick.

Q. Up there

A. Yes,

Q. How would it be during a big flood?

A. I do not think it is any worse perhaps not quite so bad.



Q. Do you know where this sediment and sand comes from? A. I do not.

Q. You know that it comes from a certain direction do you not? A. Yes I know that.

Q. What direction is that?

A. From the north.

Q. Do you mean up the river? A. Yes, up the river. There is some of it deposited right there of course.

Q. How far down the river can you testify that the bed of the river is filled at least twenty feet deep?

A. I would not testify to any portion of it exactly except where I stated that I had a berry. I have got it there, from land marks which I knew at that time, that the river there has filled up from twenty to twenty five feet.

Q. How deep did you ever know the flood waters to scour out the sand and



sediment in the bottom of the river

A. I could not judge of my own knowledge.

Q. From the deposit on the side of the bank that has been washed away could you say how deep the bed of the river was I could not? Did you ever see the sand actually coming down the bed of the stream from there?

A. Well I think I could almost see it

Q. Could you see it?

A. I could not tell.

Q. Did you ever see the water up there running between sand banks?

A. Yes.

Q. What was the operation of the water on the sand banks?

A. It seemed to be washing the sand away, I would not say that I actually saw the sand in the river floating



Q. You would not say that you could see that? A. No

Q. Could you see whether or not the sand banks were breaking off?

A. Yes, I have seen that

Q. To what extent?

A. It depends on the velocity of the river as it passes.

Q. Well if the river is about as high as now?

A. Well it would not wash it off very rapidly.

Q. Well when the river is higher?

A. Of course it would wash it rapidly when it is very high. But then of course you could not see any of these sand banks at all; they would be all covered.

Q. Are ~~not~~ those sand banks such as have any adhesive qualities? Do they adhere together or do they break off very easily?

A. They break off very



easily

Q. Have large a bunch of sand will break off there and go into the water?

A. I think it would just dissolve like salt. It does not break off at all it just dissolves and goes away.

Q. From your observation did you find any sand in the stream above Fulsom; that is for any considerable distance above the rapids?

A. I have not examined to find whether there was any sand. Of course I can see sand along the edge of the river, that is all I know about it; I do not know how deep or how much of it

Q. Do you know whether there is any barrowing above on the banks of the American River, between there and the South fork?

A. I think there is very little. There are some orchards



And gardens but no farming  
or not much.

Q. What is the great portion  
of the country composed of  
there? Mountains or valleys?

A. Mountains and some  
small valleys: that is, on  
the south side.

Q. How far up the river  
would you have to go before  
you would find a valley  
where it was susceptible of  
cultivation.

A. On which side of the  
river do you mean?

Q. On either side?

A. Right north of the bridge  
now, where I live is a small  
valley. Half a mile below  
the bridge now there is a  
small valley there.

Q. Then how far up  
would you have to go  
before you would find  
another?

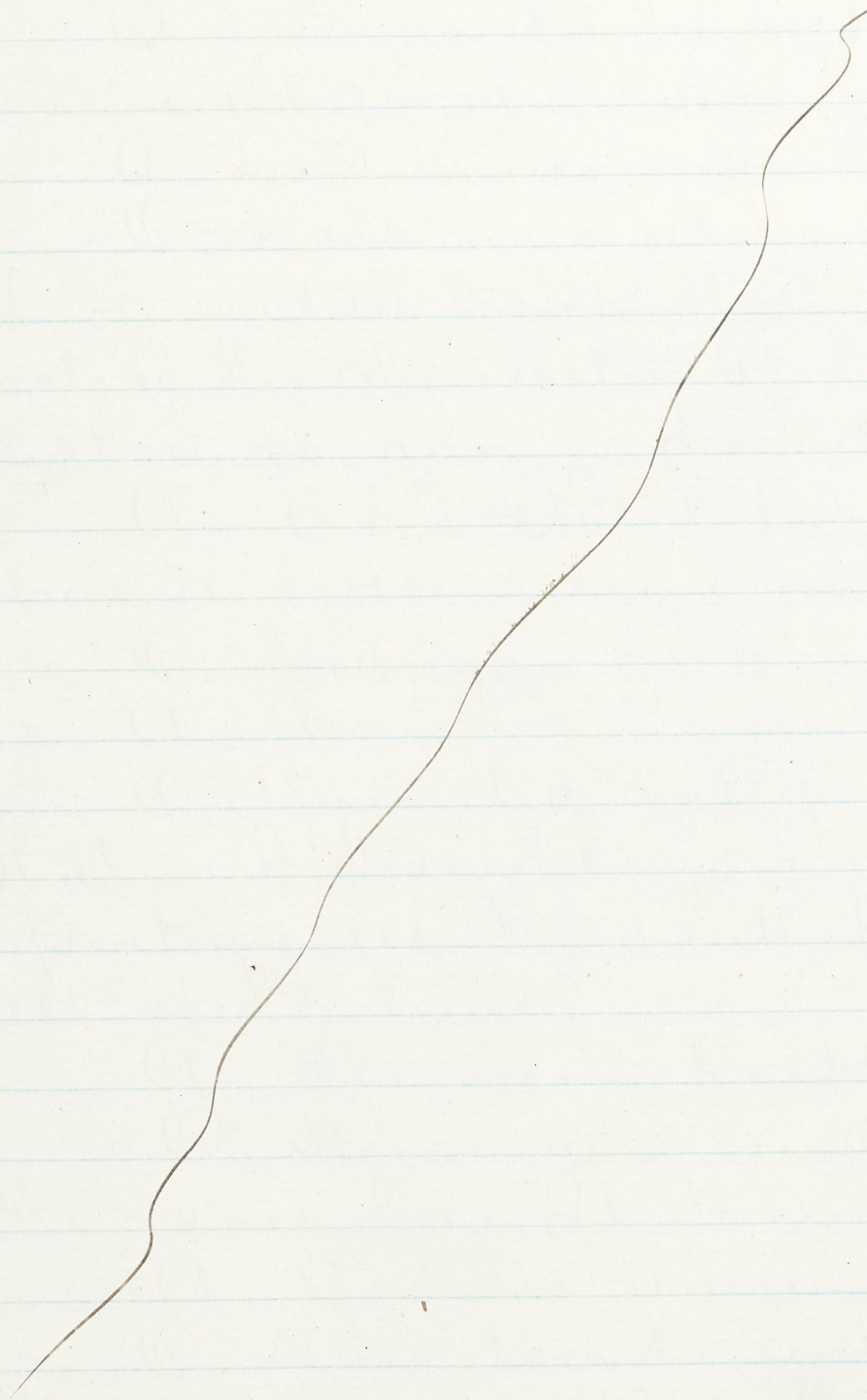
A. You would go a good  
way, a good many miles.  
There are not many valleys



up along the immediate  
vicinity of the river: not  
until you go back.

Q. Have you ever been  
up to the junction of the  
middle bank

A. Yes.





Q. When were you up there?

A. I could not specify the time it was a number of years ago.

Q. How is that?

A. I say a number of years ago. I do not remember the time.

Q. Did you see the gold run mine while you were there?

A. No I never was there.

Q. Well now at the junction of the middle fork did you notice the character of the water that was going down?

A. As I stated before it was a little rocky - muddy.

Q. Did you go above that?

A. No.

Q. You did not go above that - I thought you were speaking up the South fork all of the time?

A. The north fork

Q. Have you ever seen the river here at Sacramento?

A. Yes Sir many times.

Q. How does the water at Yuba and above there



compare with water down here.

A. I think it is pretty much about the same color.

Q. About the same color?  
When did you have your highest water at Yalsam since you were there?

A. I think the highest blood we had there was in 1862.

Q. How much higher was that than the flood of 1867-'68?

A. I do not remember probably seven or eight feet difference. I have heard it stated but I do not remember.

Q. How much higher than any flood that you have had since you have been there?

A. Is the one of 1862?

Q. Yes Sir.

A. I think probably the one of 1862 was six or seven feet higher than any I have seen there to the present year I think



Q. At what place were the granite mills washed away?

A. I believe it was 1862.

Q. Where were those mills located?

A. About a mile above the Suspension bridge on the bank of the river.

Q. In the Canon A. Yes Sir

Q. How far from the banks of the river?

A. Well the mill would be about one hundred yards from the banks of the river.

Q. Have you ever had sufficient water up there to cover that ground, since where the mill stood

A. Yes Sir I think so.

Q. How deep?

A. I do not know how deep but it has been over the mill site I think since that time

Q. How many times?

A. It has been once at least, 1878 was the last, 1877 along there.



## Cross-Examination of George Little

Mr Catlin - Has not the old mill washed away once before 1867, was not there a mill there?

A. A portion of the mill was washed away.

Q. What year was that

A. I do not know it was probably about 1858, I am not positive about the year that that was washed away.

Mr Stark - During what time has the largest portion of the deposits been made at Halsem.

A. Within the last ten years I think

Q. Well has the amount of deposit been increasing or decreasing yearly, that is so far as the actual amount coming down is concerned?

A. I think it has been increasing.



Q. Every Year A. Yes Sir.

Q. More comes each year than the year before?

A. Yes Sir I think so.

Q. How has the river been filling in the last five years?

A. It has been filling pretty rapidly.

Q. How as compared with the five years before that?

A. I think the five years preceeding that it did not fill quite so rapidly, as it is as as it has during the last five years.

Q. How has it been filling within the last one year? As compared with the same years previous?

A. Well I think it averages about the same. maybe a little more I could not tell exactly.

Mr Cathu - What has been your occupation during the last five years?

A. I have been ranching.

Q. In that little valley back



There A. Yes Sir

Q. About a mile from the river

A. Yes Sir that is right.

Q. When was the last that you were engaged in mining?

A. I think in all probability it is eight years ago since I mined - eight or nine years ago.

2. Since that time you have been engaged in farming on that piece of land in that little valley about a mile back from the river, right north pretty nearly a mile

2. Is the river in sight from your place where you live?

A. No sir, you cannot see the river from my house

2. Where you mining at the time you were mining last? A I was mining the last mining that I did was up near the



site of the old Granite Mill

Q. On what is called Slate Bar Hill? A. Yes sir on that ravine

Q. Is there a locality there known as Slate Bar Hill?

A. Yes sir

Q. State whether that has been mined extensively or not? A. Well there has been considerable mining done there - a good deal

Q. How high is the level of the ground of the Slate Bar Hill, where this mining is done on the hill?

A. Well, in all probability, it is about 100 feet

Q. What kind of earth is it on Slate Hill?

A. Well, it is a red hard gravel

Q. Red gravelly soil?

A. Yes sir, the greater portion of it.

Q. I will ask you whether they have not been wash-



that material  
ing ~~gravel~~ into the hill <sup>river</sup>  
more or less ever since 1855?

A. I think they did not  
begin in 1855-

2. Did they begin in 1856?

A. I believe they began there  
as soon as the water came in  
in 1856 they must have be-  
gun there

2. As soon as salt water  
came in? A. The north  
fork ditch

2. Where did they bring  
the water from?

A. They brought it from  
the North Fork River

2. State whether the North  
fork ditch was a large ditch  
or curral, about how much  
water it brought down?

A. It was pretty large, I  
do not know the extent of  
it, but four feet deep, and  
I think, eight feet on the  
bottom and twelve or  
fourteen on the top, if I  
remember correctly

2. Did it have a pretty



good current? A. A pretty good current

Q. How many miles you say? A. Well I could not state how many miles.

Q. A current about as fast as a man would walk - you have been on the bank of it often?

Mr. Hart objects as not legitimate cross-examination

Mr. Cattin. Was there a branch of that ditch brought on Slate Bar Still, to accommodate the miners?

A. There was

Q. About the year 1856?

A. Well probably it was about that time

Q. How far is Slate Bar Still from the point you have been describing, say for instance, where your ferry was? A. Well it is about three-quarters of a mile from that to a mile from where my ferry was, from the lower end of the



Slate Hill to the ferry.

Q. Above the ferry? A. Yes sir, the ferry was below.

Q. The mill is above the ferry, and on the north side? A. Yes sir.

Q. And about one hundred feet above the level of the river? A. Yes sir.

Q. And the miners washed the top of that hill, the brow of it, into the river, didn't they? A. Yes sir.

Q. Was not a good deal of mining done there between 1856 and 1860?

A. Well, considerable.

Q. Were you mining there on that hill? A. A portion of that time.

Q. Did you discharge your water and tailings into the American River?

A. Well, it did not reach the river.

Q. Where did it go? A. There is a large flat immediately below the bluff, below the



Hill

Q. Where did the water go that would come from your sluices?

A. The water went to the river

Q. Some of your tailings lodged on a sort of bench on the immediate bank of the river? A. Yes sir

Q. Right on the opposite side, on the south side of the river, has there been the same character of mining carried on?

A. Yes sir, mining by the same method, not to such an extent I think

Q. How was that mining done, on the south side of the American River, right at the point that you spoke of? A. Well that has been mined in the same manner in which the Slate Hill was.

Q. By water from where?

A. From the South Fork Canal

Q. From the Natomna Canal?



A. Yes sir, From the Natoma Canal

Q. That takes water from the south fork, does it not?

A. Yes sir

Q. What is that, a pretty large canal? A. Pretty large

Q. How large? A. I do not know the exact size

Q. Have you never seen the main canal? A. Yes sir, I have seen it, I think it is fully as large as the North Fork Ditch

Q. Fully as large as the other?

A. Yes sir, I think it is fully as large.

Q. Do you know the claim of Chris Lawson? A. Yes sir, I know where it is situated

Q. How many acres of ground has he washed off the top of the hill, on the south side into the river? A. I do not know, I have not been across to the claim in a number of years

Q. You have not been there for a number of years?



A. No sir, I do not think I have

Q. Is there a bar right below your ferry, on the north side, called Main Bar? A. There is

Q. How long has mining been carried on on that bar?

A. About the same length of period exactly.

Q. State how much of the river fronts on the north side, that bar occupies from the head of it down to the foot, about what length, what distance? A. I should judge pretty near a mile

Q. Just describe how the mining is conducted there, how the tailings are managed, and where they go? A. You asked me where the tailings went, didn't you?

Q. Yes sir, I am speaking of that bar on the left side on what is called Main Bar?

A. They were dropped immediately into the river, the principal portion of them

Q. Dropped right into the



river, they <sup>would</sup> have to run their sluices right into the river in order to get fall, wouldn't they? A. Yes sir.

Q. What is the elevation of that Bar above the river, its natural elevation above the river? A. Probably from the bed of the river to the bar, would be probably forty feet, and then it took a slant upwards again to the top, probably fifty feet.

Q. Then in the rear of that the red land comes up fifty feet higher. A. Yes sir.

Q. Now what is the character of the soil on the main Bar?

A. Well it is all a gravel deposit.

Q. Was it this red earth, or was it gray and sandy?

A. No it is not red. It is a soil on the surface, some places deep.

Q. Is it a grey, sandy loam? A. Yes sir, pretty



much gray sandy gravel

Q. Now how many different sluices do you know of running when mining was in its best stage, its highest stage, how many sluices would there be running on that bar from the head of it down to the foot? A. I do not know the exact number Mr. Catlin, probably there would be twelve run of sluices, I could not exactly say the number - I do not know.

Q. How many inches of water did those sluices usually carry, say at any time in the last four or five years? A. Probably they cannot wash with less than 100 inches at the present time to each sluice, from that to 200 inches.

Q. Do you know how many inches Chris Lawson uses in his claim on the south side? A. I do not



Q. Now do you say that there is now fall in the river now for a mile above Folsom, it is dead level? A. From a short distance below where the Granite mill stood to the foot of what is called Negro Bar, I think there is very little fall in the river.

Q. You know where the Branch State Prison is located? A. Yes sir.

Q. That is about a mile above the town of Folsom?

A. Yes sir.

Q. I will ask you whether there is not at least 50 feet fall in the river at the present time, or at any time last Summer from a point right on the river where that ~~river~~ <sup>Prison</sup> is situated down to the bridge? A. Well as I stated, below the Granite Mills - Q.

Q. Answer my question?

A. I do not know the exact



fall of the river that distance,  
I do not think it is 50 feet

Q. Do you know anything  
about it? A. I do not know  
the exact fall of the river

Q. You do not know the  
exact fall, but can you tell  
within 20 feet of what it is?

A. I cannot, only by see-  
ing the water run very  
still - I judged it to be nearly  
level

Q. Does it run very still  
clear up to the State Prison  
ravine? A. Not clear  
there, there is a fall below  
the Prison

Q. In your examination  
you stated it was a dead level  
for two or three miles?

A. Not for two or three miles,  
I stated it was as far as Granite  
Mills, almost dead level

Q. From the bridge up to  
the Granite Mills?

A. From the lower end  
of Negro Bar, the lower portion  
of what we call Negro Bar



up to near the Granite Mills it seemed to me almost level.

2. What is the character of the immediate bank of the river on both sides of the bridge, that is, where your old ferry was, up to where the Granite Mills stood?

A. Below where the Granite Mills stood there is a little fall below.

2. What is the character of the immediate banks of the river from where your ferry was up to where the Granite Mills stood, are they rocks or soil? A. Rocks.

2. Rocks on both sides?

A. Rocks on both sides.

2. What kind of rocks?

A. Slate I think and granite.

2. Now does not the river at the point you describe, from your old ferry up to where the Granite Mill stood formerly, run through a deep narrow channel in the <sup>slate</sup> bed of the rock?



A. Not altogether, Mr Cathin from my ferry to the bridge

Q. Does it to any extent?

A. From my ferry, where I had a ferry, up to the bridge, it is open, and then from the bridge the cañon begins.

Q. How far was it, from your ferry to the bridge? A. About or a little over a quarter of a mile

Q. Then your ferry was a quarter of a mile, below where the bridge is? A. Yes sir it was below where the wire bridge is, our suspension bridge

Q. Now you say that the channel of the river, which formerly ran on the north side opposite Folsom now runs on the south side? A. Yes sir pretty much all our water runs on the south side at the present time.

Q. Whereabouts, opposite the town of Folsom? A. Yes sir, across around by the mouth of that ravine there



Q Do you know where Negro Bar is? A Yes sir

Q Does it run on the north side or south side? A I think it runs across what is called Negro Bar

Q Does not the current run right against the bank on the other side, just as it always did? A Yes sir, on the opposite side of the river now from where I had the ferry is close to the bluff on the Folsom side

Q Take the river from say a mile below the bridge, <sup>below</sup> the foot of the old Negro Bar, and from there up to the head of Negro Bar, where does it run on the north side or on the south side of the old channel? A Well it runs sometimes on the north side and sometimes on the south side

Q Where did it run this last summer? A Well, when we got to the bluff, I suppose it ran on the north side, but this last summer it has



run on the south side up to-  
wards the bridge - up that way  
or immediately above the town  
of Folsom, it is running on  
the Folsom side of the river, the  
main channel

Q. This sand that you have been  
speaking of, is that sand on the  
Old Negro Bar that you have  
been speaking of? A. It is all  
along on both sides of the river

Q. Is there any on the south  
side of the river from the  
bridge up to the State Prison  
ravine? A. Well you can-  
not see it very well there, from  
the bridge down

Q. Because it is not there  
you do not see it? A. I do  
not know whether it is there  
or not, probably the water  
covers it

Q. You cannot see any on the  
south side? A. No. I do not  
think you can see it right there,

Q. You never have seen any  
right there have you? A. Oh yes.

Q. When? A. Not <sup>very</sup> many years ago.



Q. Where was it? A. Well about half way between the bridge and the Granite Mills in the river there

Q. How much of a bar of sand did you see there? A. There is a bar of sand 15 feet deep

Q. Where was it? A. About half way between the bridge, and where the Granite Mill stood

Q. Was it the end of one of these tail sluices that came from the top of the hill? A. No sir

Q. Have you ever seen any of them in the river? A. Yes sir.

Q. Have you seen Chris. Eklaus' tail pile run into the river and nearly across it?

A. Yes sir

Q. For a number of years past? A. Yes sir

Q. You say you have been on the north fork several times, how did you go along the river? did you go along the road up on the hill? A. Well, I have gone principally along the



road, I have gone up along the river too - several miles up

2. When you went up to the south fork, how did you go up?

A. I went up along the river by Beals' Bar, and all that way, I did not follow the river all that way

2. You took the road on top of the hill? The greater portion of the way, did you not?

A. Some portion of it

2. You could not see the river? A. A great portion of it I did

2. Will just tell me what road you took when you went to the south fork? You say you went to the south fork some years ago, what road did you take? A. That is a good many years ago, Mr Cutler, I do not remember exactly, the road that led there

2. What places did you go to?

A. I had just been up along the river

2. When you made your



visit to the south fork where you say you saw muddy <sup>water</sup> there some years ago, just state what <sup>road</sup> route you travelled on that visit?

A. I could not describe it. There is a trail up along the river; going up to Beals bar there is a trail along the river

Q. How did you go, - on horse-back? A. No sir I was walking

Q. You went all the way on foot?

A. Yes sir

Q. What was your object? A I had no particular object at all, I was just going up the river to see the river I suppose

Q. Do you know where Dotens' Bar is? A. Yes I know where Dotens' Bar is, I have been there

Q. Has there been a good deal of mining there? A Considerable

Q. What kind of earth was washed into the river there?

A. I do not know

Q. Was not it this red soil mostly? A. I think it is a reddish color



2. How far is that above Folsom?

A. I think it is about nine miles.

2. Well what bar is next above that on the north fork? A. Well, there is Rattlesnake bar

2. Any other bars there?

A. There are several; I do not know them all

2. Where did they get their water to wash their dirt with?

A. From the North Ditch they got water

2. Condemned Bar, do you recollect that? A. Yes sir I recollect it

2. Where is that situated?

A. Well I do not remember where it is

2. Is it this side of Doten Bar?

A. Yes sir, this side of Doten Bar.

2. You say you are not acquainted with the mining on the south fork? A No, not at all

2. Were you ever on Mormon Island? A Yes sir

2. Have you been to Red Banks? A Yes sir

2. Have you been to McDonalds



still? A. No; Red Banks has been as far up as I have been on the edge of the river

Q. What kind of mining was carried on there? A. Well it was sluicing

Q. Where were they sluicing

A. I suppose into the river

Q. Into the south fork? A. Yes sir

Q. What kind of earth was it?

A. A kind of red colored earth

Q. During what time was that that you saw that mining?

A. Well, I cannot state Mr. Cattin, but it was very early, I think as early as 1856 or '57, I think probably it was before that, I do not remember; I just was once there after the mines had been started

Q. Well, now you say you think the river is filled up about 20 feet deep in that deep place where your ferry was?

A. Yes sir, I think 20 or 25 feet

Q. Well now then, how much



has it filled up below that, say about abreast of the middle of Negro Bar? A. I could not tell exactly, but I should think it was not filled up quite as much as that.

Q. How would you ascertain that it is filled up 20 feet there? is it a matter of your opinion merely? A. No, sir I had

some land mark by which I could form an opinion or judge the depth of the deposit.

Q. How much higher is the water under the bridge as it passes under the bridge now from what it formerly was, say in 1856? A. In all probability it is ten or 12 feet higher, as it runs in the summer.

Q. You say that is the probability. How do you get at that? A. I only judge that to be <sup>about</sup> that amount.

Q. When was the bridge built that is there now? A. I do not know, but the first bridge was built in 1857 or 1858.



Q. Do you know when this bridge was built? A. Yes sir I do not remember exactly the year in which this bridge was built, I think in 1862 or 63

Q. Is there any material difference in the ~~water~~ flow of water under that bridge now and what it was in 1863 after it was built?

A. Now I do not think there is any great difference immediately under the bridge, it always was rather still water.

Q. Well did I understand you to say that near there there is a deposit in the nature of a bar a mile wide or a half a mile wide? A. I stated there was Negro bar

Q. Well Negro bar was formerly mined extensively was it not? A. Yes sir

Q. Describe how many people lived on Negro bar say in 1854 and 55 along there? A. Well in 1854 probably three hundred miners, more or less, pretty near that. I think in 1851 there were more than that



Q. More still in 1851? A. Yes

Q. Well state whether all the surface of that bar has been mined or — state how extensively the mining has been done there?

A. I think the larger portion has been mined off

Q. How many acres of ground is there about on the old bar

A. probably from one hundred and seventy to two hundred acres as far as I could judge

Q. You say the greater part, I will ask you whether nine tenths of the original bar has not been dug up and washed away by mining? A. I think in all probability there has

Q. That is a bar that you speak of that is now a waste of sand a mile wide? A. Yes sir

Q. About how long? A. Well from a little below the bridge where the ferry was down to the lower portion of Negro bar, I should think it was a mile and a half, from that to two miles

Q. You call that a mile or a mile



and a half long from the river up to where this bluff bank comes up. How high is that bluff bank or was it? A. At what point

Q. The bluff bank that bounds Negro bar on the south side of it

A. Well the bank there is about forty feet high on the Folsom side — it was originally

Q. And you estimate that bar to be a mile wide — Answer

A. I think from bluff to bluff

Q. From the bluff on this side you mean to what bluff?

A. I mean from the bluff on the south side to the bluff on the north side, in the widest part, in the middle of negro bar, would be pretty near a mile

Q. You are speaking of a bar in the river bed, is that a mile wide? A. No the bar was not, I say including the river bed

Q. Is it a half a mile wide?

A. I think at the widest portion originally it was pretty near a half a mile wide from the edge of the river to the bluff on the



South side immediately underneath  
Folsom

Q. Now you say you never saw  
any sand till 1863. Where did  
this material go that was washed  
in above there from slate bar  
hill and from Beals bar and  
Mormon Island and those places,  
did you never see any of that  
come down? A. There is ~~no~~ no  
doubt but what there was some  
of it come down but you cannot  
see it in the water

Q. So you mean to say that there  
has been more debris deposited in  
the river at Folsom during the  
last ten years than the ten years  
previously? A. Yes sir I think a  
great deal more

Q. Where did it come from? A. I cannot  
tell.

Q. Did it come from the miners  
who were using the waters of the Natuna Canal  
and the North fork ditch? A. Part of it  
came from there, no doubt of it

Q. Can you tell what part of it? Have  
you any means of ascertaining? A. I have  
no means of ascertaining the proportion that  
lodged there from these mines



# Re-direct Examination George Little

X

Mr. Hart: You say that Mc-  
Gro Bar, comprising from  
175 to 180 acres of land  
has been mostly mined out?

A. Yes sir. That was mined  
in early times, not done by  
hydraulic mining, it was  
Cradling and Long Toms, it was  
worked by that process

Q. How was that mined?

A. By the Long Tom and Dockets.  
That mine was principally mined  
out by those means

Q. To what depth was it  
mined out?

A. Well, some portions twelve  
feet, some more and some less  
some shallow - varying

Q. What became of the Cobble  
that were taken from the dirt?

A. Well the cobbles were gen-  
erally all left on the place

Q. They were all left there?

A. Yes sir

X



2. Was there any of this white sand there at that time such as you have described?

A. Well, they may be some of that sand that was washed from these modes of washing - some of that sand.

2. Could you see any deposit of white sand there?

A. I do not remember of seeing any there at that time.

2. How long ago do you think that mining was done?

A. Well, I suppose the mining there commenced in 1849 or 1850.

2. How long did it continue?

A. And it has continued for several years, more or less?

2. Up to 1862? A. I think there was very little mining at that date on the bar.

2. You think it had all stopped up to 1862? or only a little?

A. I think it was all mined out prior to 1862.

2. Had the dirt washed away such as dirt wash from there



before 1860? A. Yes sir

Q. Washed away into the river. What was the general character of the soil there did you say? A. It was gravelly.

Q. Now then you say that it has since been made a sand waste there? A. It is all covered now with deposits, tailings, gravel and rock.

Q. Has it been filled up so that it is as high as it was objected to as leading.

Q. How high has it been filled up with sand at that bar as compared with its original height is it as high now, or lower than it was?

A. I think it is a good deal higher.

Q. You think it is a good deal higher up than it was when it was mined?

A. Perhaps it is ten or twelve feet raised higher than it originally was.

Q. Ten or twelve feet?

A. Yes sir, say.



2. How far up the river did you say State Bar Hill is?

A. Just immediately above the Suspension Bridge, the lower part of it being just immediately above the Suspension Bridge

2. What was the character of the soil there? A. It was a hard yellow gravel

2. All gravel or some soil?

A. Well, some soil on the surface

2. What kind of soil was that?

A. A reddish soil

2. Was there any sand in it?

A. Well, there did not appear to be sand

2. Was that by drainage or what kind of mining was it?

A. It was generally picked down and drifted out, and fallen down and then washed away

2. Did it all wash away?

A. No, it is not all washed away yet

2. How much of the hill is there left yet?



A. Probably there is not more than one third of it washed away now

2. Well, about how large an area of land was taken from that place?

A. I need not specify

2. Was enough taken from there to fill up this sand bar on Negro bar — To have made the sand bar, that is now at Negro Bar?

A. I think not.

2. Was there half enough?

A. No sir

2. Where are the cobbles of Slate Bar hill, have they been washed away?

A. A portion of them have been washed into the river, the greater portion of the cobbles have landed on this bench, immediately below the bluff between the bluff and the river. The finer portion would go to the river and the heaviest cobbles would remain

2. About what proportion



of that hill was made up of these cobbles that are still there, that is that portion of the hill that was cut down - peeled down

A. What proportion of cobbles of that hill?

2. Question. A. Probably the cobbles are one half of the whole hill.

2. You think one half of the material is there yet?

A. Well, I don't know as it was quite half. In all probability a number of the cobbles washed into the river

Q. When was this mining done at slate bar hills?

A. It began in 1856 and up to the present time

Q. Have they been working there ever since?

A. Well they have been occasionally to work for a year or two, the water has been out. They have not worked on steadily because they have not had water steady all the time with two or three exceptions —



It has been mined off and on from 1856 until the present time

Q. Have they mined very extensively there or very slightly

A. There is considerable of the ground been mined off

Q. It has taken them all this time to mine off a part of the Hill there - it has taken them since 1856 to mine off a part of that hill? A. Yes sir they have been mining on that hill since that period.

Q. Do you know whether or not in an extensive hydraulic mine it would take them a year to knock that hill all down?

A. I do not know

Q. When was the most of the work done before or after 1862?

A. I could not state whether it was before or after, I think prior to 1862 but I could not state that

Q. Taking all the material that has come from slate bar hill and taking it in the manner in which it has come from that



hill, has there been enough of it to keep the American river boiled? A. I think not.

Q. Now what kind of mining did you say there was on the south side? A. Pretty much of the same character.

Q. Done with the pick and shovel or the hydraulic mine

A. I do not know I think they used the pick and shovel for picking it down

Q. How much mining was done there?

A. I know only of one mining claim running right opposite there at the present time

Q. Have they mined extensively?

A. There has been considerable mined there but of not of late years, there is only one mining claim that I know of running there,

Q. How long since a greater portion of that mining was done there? A. Several years ago

Q. Before or after 1862?

A. Probably after 1862

Q. Probably after 1862? A. Yes sir



Q. The greater portion was done  
A I think so.

Q. What kind of soil is there  
in that? A. Well it is red  
hard gravelly soil

Q. Any sand in it? A. Well after  
it is washed I suppose there is,  
you cannot discern sand in it

Q. Is it mostly sand or mostly  
clay? A. Well it is of a clay  
nature and gravel

Q. Well about how much mining  
has been done there? A. I do  
not know the exact amount, the  
number of acres.

Q. A. Number of acres? A. I do  
not know the number of acres

Q. How it been mined to any  
considerable depth? A. Well I  
suppose it would average about  
fifteen or twenty feet deep on the  
banks that would be worked

Q. You think that there could  
have been enough sand taken  
out of all the material taken  
from that place to have filled  
the river up for two miles?  
A. I think not



Q Where are the cobbles that were taken from the mining on the south side? A Part of the cobbles remain on the claim where they were working.

Q. A very large proportion or a small proportion? A. I think a large proportion of them

Q. How far up the river did you say Dotens bar was?

A I think about nine miles

Q. And Rattle Snake bar how far up the river is that

A. I do not know the number of miles.

Q. About how far is it above Doten bar? A. It may be a couple of miles I do not know the distances there.

Q. Do you say there was any considerable amount of mining done on the several bars Rattle Snake and Dotens? A. I do not know I have not been on either of them for a number of years

Q. Have you noticed upon that river whether or not there is a good deal of mining all the way



up? A. I do not think there is a very great deal up along the river on the north fork at the present time.

Q. Did you ever notice Rattle Snake bar? A. I have only passed it, I do not know as there is any one mining there.

Q. Do you know whether or not Rattle Snake bar is simply a drift that has come down from above — the debris that comes from the mines above? I do not know.

Q. How far is from Folsom to the south fork of the American River? A. I do not know exactly three or four miles.

Q. Three or four miles? A. Yes sir.

Q. How far is it from there to the middle fork? A. I do not know exactly.

Q. What is your estimate?

A. I do not know, I would not make any calculation; I am not much acquainted over there.

Q. I know, but you have walked up there have you



Not? A. Yes sir I have walked there.

Q. You Can tell whether it is 100 miles or something smaller — about how far do you say it is?

A. Well maybe four or five miles.

Q. Four or five miles above the south fork?

Mr Catlin Is that your estimate?

A. I do not know exactly I have been once or twice up along the river there and I do not know the distances at all.

Mr Hart So you know anything about that — Cannot you make any estimate? A. No I never did I ~~could~~ do not know these distances, the places I am not acquainted with at all, I have been up through there but I have paid no attention to distances or anything else at all about it.

Q. I want to ask you one more question: do the people at Folsom drink the water of the American

River? A No —



Q Can they drink that water is it good to drink? A. I do not think it is but they do not need to do it;

Q. How? A. They do not require to do it, they have got plenty of wells

Q. Well is that water up there fit for ordinary domestic purposes? A. I think not

Q. Could you use it for cleansing purposes? A. No

Q. Washing clothes? A. No.

Q. It would not be fit for that, would it be good for cooking? A. No

Mr Catlin You have plenty of water and wells and springs? A. Yes sir plenty

Q. You do not have any occasion to use River water, you would not use it if there was no mud in it?

A. No sir they would not use it I do not think

— 11 —



# Testimony

John B Taylor

Called for Plaintiff

Mr Cadwallader Q Where is your Residence } A. Fourteen miles from Sacramento on the old Coloma Road now known as the Folsom Road

Q That is the road to Folsom

A Yes sir

Q. You live between the river and the railroad do you not

A. Yes sir

Q. How near the American River?

A. About a third of a mile

Q. Does your farm run down to the river? A. A portion of it that I farm goes to the river

Q. The American River? A. Yes sir

Q. How long have you been living and farming there? A I have been living there since 1853. four or five years after I settled there I commenced farming

Q. You have been farming ever since have you? A. Yes sir

Q. When did you come to the State?



A In 1849

Q. When did you first camp on the American River? A. I think I first camped on the American River on the 17<sup>th</sup> of August 1849

Q. At what place? A. On the opposite side of the river from here some where opposite this City perhaps opposite 8<sup>th</sup> - 10<sup>th</sup> or 12<sup>th</sup> street somewhere along up there I do not remember exactly where

Q. Did you subsequently commence mining on the north fork of the American River opposite Mormon Island? A. When

Q In 1849? A. The latter part of August. It was on the north fork at a place called Oregon bar a short distance above Beals bar, about opposite where Mormon Island is on the south fork

Q. Mormon Island is where the south fork comes into the American River?

A. It comes in right below I believe, this is upon the north fork

Q. What was the condition of the American at these two places when you saw them in 1849?



A The water

Q. Yes sir } A. The water was clear

Q. In both places } A. Yes sir

Q How is the river constructed,  
describe the channel of the river }

A. The river here at Sacramento when we crossed it the first time, when we came on the other side of the river and crossed into Sacramento we waded it; It was probably three or four feet deep I do not remember. We had to take a certain time in the day to wade it to catch it at the lowest stage, that is we were it was from the fact that there was a tide in it in a certain part of the day

Q. Well what was the construction of the river up at Murren Island

A. Well, I do not know exactly about Murren Island

Q. Composed of riffles and holes alternately } A. Above Beals bar and Oregon bar there were riffles that we could wade across

probably from eighteen inches to two or three feet deep. Those riffles would extend at the



locality I recollect for two or three hundred yards and then it would pitch off into deep holes and those holes were I should judge fifteen to twenty five feet deep

Q How far would they extend down? A They would run down maybe 3 or 4 or 5 or 6 hundred yards, I do not know exactly the distance

Q, That was the construction of the River? A, At the place I was

Q. Did you notice the bed of the River in regard to its freeness from or presence of sand? A The bottom was gravelly and rocky, Cobbles in shallow places. In the deep places where we could see the bottom we could see rocks gravel and sand, more particularly gravel ~~and sand~~

Q, Have you ever been down as far as Folsom on the American River? A. No sir

Q. Have you ever been above Oregon bar? A I was up as far as Anderson bar probably about three or four miles above

Q. The river out there is what is



Called a Canyon is it not?

A. I believe they call it Condemned bar, I remember very little about it, I passed up once and back

Q. Only once? A. Yes sir

Q. Well how do the banks rise from the river? A. As a general thing it strikes me they slopes up they kind of sloped. it has been so long ago I cannot remember

Q. How high are the hills that join the river at Mormon Island?

A. Well I do not know they must be forty or fifty feet high probably a good deal higher, that is the bluff hills.

Q. You say the bed of the river was free from sand — what was it you said in that regard. I asked you what was the condition of the bed of the river in regard to the presence of sand in it or sedimentary matter?

A. at that time

Q. Yes sir? A. I answered that they were of a gravelly and rocky bottom

Q. When you settled how long



did you remain there in the  
Vicinity of mormon Island ?

A. About six weeks

Q. What ~~of~~ were you engaged in ?

A. Mining

Q. Mining where ? A. Mining on  
Oregon bar

Q. What kind of mining was that  
which you did ? A. Well we dug  
our dirt about four or five feet  
deep and carried it to the river and  
washed it in a rocker.

Q. What part of the bar did you  
work in that way ? A. Near the  
water

Q. Two miners in those days owning  
a claim and having a cradle  
how much earth would they move  
in day ? A. Well where the digging  
was pretty good and there were not  
too many rocks to pick out we would  
wash about four hundred common  
wooden pails full in a day. Where  
the digging was hard we could  
not wash so much

Q. Well what would be about the  
maximum ? A. Oh well you might  
call it three hundred on an average



Q. How would you divide the work

A. One man would take buckets and dig the dirt up and put it in the buckets and carry it to the rocker and set it down. The other man would run the rocker and pour the dirt in and have those two buckets ready against the man came back with his other two

Q. How would he use the water —

How would he take the water up

A. He would dip it up with a dipper and pour it in

Q. Was that the only style of mining that was done on that river when you was there } A. Yes sir the only kind that I saw

Q. This would be on the edge of a bar, what would that bar be composed of } A. Composed of cobble stones gravel sand and earth

Q. Did you notice the banks of the American River opposite your place in 1853 where you settled

A. Yes sir

Q. Well what was the condition of the river then } A. Well the banks were high and bluff to a certain



extent on the south side but on the north side for some distance they were not so high then, they rise very high on the north side and lower on the south side, but quite a distance above the water on either side

Q. What was the condition of the water in 1853? A. Well I think it was colored a little but comparatively clear

Q. How long did it remain in that condition of being comparatively clear after 1853? A. Well I do not know, it commenced getting considerably colored up in 1861-62

Q. Did you ever have any trouble from overflows in that neighborhood prior to 1862? A. Not that I know of.

Q. What occurred in 1862 in regard to overflows? A. Well we had higher water there than there was any marks of at any previous time since ~~you~~ the Country has belonged to the United States

Q. Do you recollect that we had in the month of december 1861 and January 1862?



A. I remember there were heavy rains.

Q. Well how heavy in comparison with previous and after years

A. According to my judgement they were considerably heavier than we have ever had since

Q. How long did it rain continuously ?

A. I do not know

Q. Were you not there ? A. Yes sir

Q. So you recollect generally how long it rained ? A. I do not

Q. How many successive days

A. I do not

Q. Well what was the condition of the water during the flood of 1862

A. During the flood — well it was colored, considerably muddy

Q. Well how did the sedimentary matter compare with that during the previous years ? A. Well I think water was colored more than than it was previous to that

Q. How in regards to it carrying sand — how in regards to its transporting sand and gravel

A. At that time with previously

Q. Yes sir ? A. Well I noticed



Very little about gravel and sand being deposited until after the flood.

Q. Well I am speaking after the flood } A. Well after the flood I noticed that there was small bars the next year or two formed in the river

Q. Had you ever seen any gravel down there before that time on the lands } A. I do not know that I did but what was there naturally

Q. Well I mean after the flood of 1862 after that subsided did you see sand and gravel in any of the lands adjacent to the river } A. Well there has always been gravel there

Q. Well I mean on the land — I mean as distinguished from the natural deposit. } A. I never saw any that I thought was deposited there by the water, that is of late years, or a few years before that up to that time

Q. Did you notice this deposit of sand and gravel after the



flood of 1862 } A. Yes sir

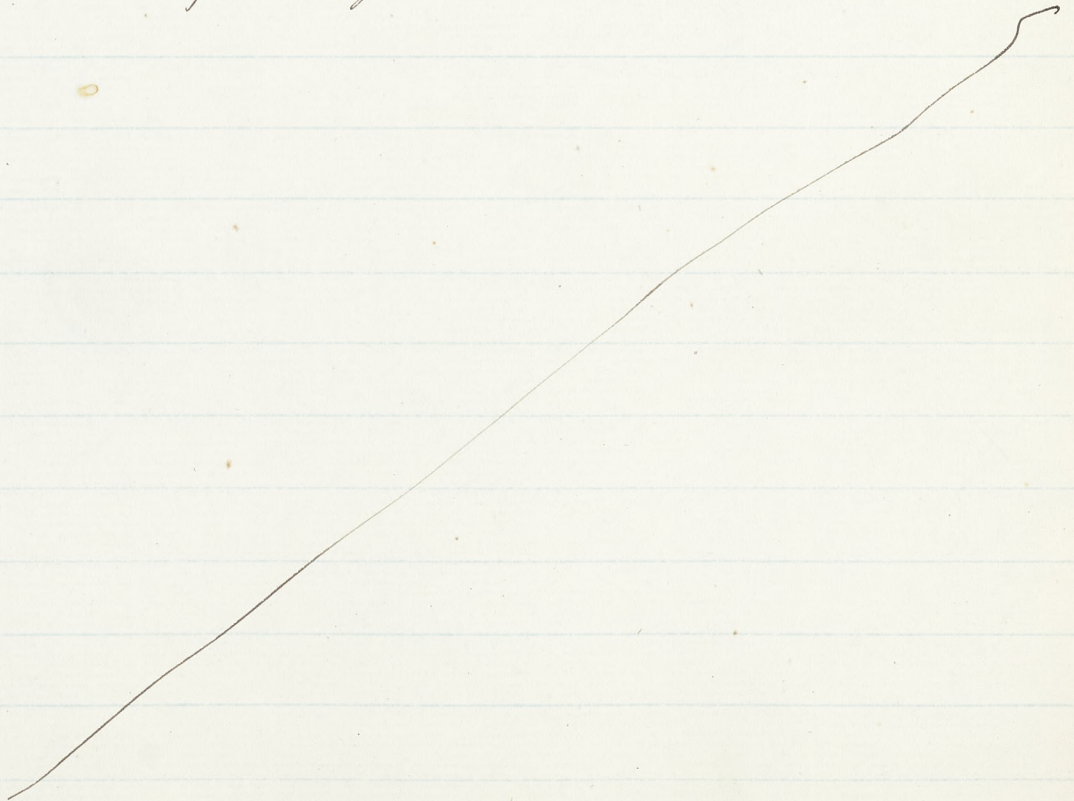
Q. For the first time? A. Yes sir  
to any extent

Q. Well now how in regard to the  
formation of bars in the American  
River, when did they commence to  
form? A. After the flood of 1862  
I commenced noticing bars in the  
river when the water would get low

Q. Well what has it been doing  
since? A. It has been increasing  
Q.

Q. How?

A. Getting larger and more of them





2. How in the last five years has it been?

A. The last five years apparently they have increased very rapidly.

2. How much is the fall in the river opposite your place?

A. Well, some four or five or six years ago or longer than that Bar cones commenced forming on the side of the river - in some places on the south side and in some places on the north side - and as the water would go down they would show more out in the river and throw the channel more to one side. In the last two or three years they have formed more in the middle of the river. In places the water would run on each side of the bar, the sand bar, leaving the bar like an island for some distance. Perhaps then it would leave the sand bar on the side and run on the off side of the water



and then form another island  
 These islands I should judge,  
 some of them, were two or  
 three, and some as much as  
 five feet above where the  
 water runs.

Q. What are they composed  
 off? A. I call it sand

Q. What kind of sand?

A. Very sand, a greyish  
 like sand. Some coarse and  
 some fine

Q. Look at some of these  
 bottles here. Look at that  
 (No. 7)? A. Well that  
 looks like the fine grey sand

Q. Look at that (showing  
 witness the grey sand from the  
 place of Hodgden)

A. Some of it looks a good  
 deal like that

Q. It looks like the grey sand  
 of Hodgden? A. Yes.

Q. When did that first make  
 its appearance in your neigh-  
 borhood? A. I noticed it  
 just after the flood of 1861-2  
 Q. How in late years?



A. Well, it has been increasing there in quantities in the river

Q. How in the matter of coarseness?

A. Well, I think it is coarser than it was when it first commenced coming down

Q. How in regard to gravel coming down as far as your place?

A. Well, there is a good deal of gravel along on the bars and edges of the river

Q. How in regard to cobbles coming down since 1862?

A. I do not know whether they came down or not

Q. Well, I am asking for information?

A. Well, I tell you, I don't know

Q. You do not know whether they do come down or not?

A. No.

Q. Have you seen any deposits of gravel?

A. Yes.

Q. In the last ten years?

A. Yes

Q. In front of your place?

A. I think on my place.

Q. Where did they come from?



Q. I suppose it came out of the river, it was not there before

Q. When was it placed there?

A. It was placed there by the water?

Q. But when? A. Well twice 1862. Some of it last Spring

Q. How large is that gravel

A. Very small. Probably the size of an egg. I have seen gravel where these washes have been from the size of a birds egg up to a hens egg

Q. Have you been in the habit of supplying this City with what is called wash gravel?

A. No.

Q. I do not know but what you has? A. No. There has been cobble come from my place to the City

Q. You have sent Cobble in?

A. Cobble.

Q. When did this gravel that you have spoken of first make its appearance on ~~your place~~

A. I noticed some of it



after the flood of 1862?

Q. And you say you got some of it last winter? A. Yes.

Q. How much of your land did it cover? A. Very little.

Q. How far back from the bank of the river did it go?

A. Well, there is some of it goes for one hundred rods through a portion of my place.

Q. Is that land that you cultivated? A. No. There is no overflow on any land that I cultivated. I will take a little of that back. I have got some fruit trees where it overflows but not to amount to any thing.

Q. I want to know how far this gravel that you have described come in from the edge of the bank? A. I say for pretty near one hundred rods I should judge, some of it. To explain that is there is a low place in the bank of the river and when the water gets to a certain height, it runs



through there very rapidly  
 Q. What light?

A. I suppose in 1862 it was  
 ten feet deep, probably deeper,  
 may be fifteen

Q. How deep was it last  
 spring? A. It lacked about  
 six feet of being as deep as it  
 was then

Q. Then this cut last winter  
 was four feet lower than the  
 natural bank?

A. This cut?

Q. Where this water enters?  
 Mr. Catlin. We object to that  
Mr. Cadwalader. How high  
 was the bank last winter over  
 which this gravel came out of  
 the river channel?

A. At low water mark?

Q. No. How high was this bank?

A. Where the water went over

Q. Yes. Over low water mark.  
 That is what I mean?

A. That is what I wanted  
 to get it. It must have been  
 some fifteen feet; I do not  
 know exactly



2. That is, this gravel had to be fifteen feet from the bed of the river before it could get on this bank? a Yes

2. What is the size of that gravel? What will it average?

A. I do not know

2. What are the largest pieces?

A. I have seen gravel there probably as big as a Hen's Egg that came through this place. At least I supposed it came through there; I saw it on the land afterward

2. How much higher was the water in 1862 than 1881?

A. I should judge it was a foot six feet at my place

2. How was it down at Brighton at the same time?

A. Well, I thought it was higher than it was in 1862

2. How far is it from your place to Brighton?

A. About nine miles

2. By the river?

A. I suppose farther by the river



We call it that by the road.

2. At what season of the year do these bars form in the channel or the bed of the river?

A. In the Summer when the water commences going down those bars commence showing themselves, and as the water recedes the bars show higher up above the water.

In the fall and winter when the rain commences these bars appear to wash off and get much smaller.

2. Wash where?

A. I do not know they come down the river somewhere with the current.

2. When do they fill up again?

A. They appear lower until spring when the snows commence melting and the river commences rising.

When the river commences rising they appear to form and keep on forming as long as the river rises and falls from the melting of the snow; and as



a natural consequence when the tides rise and fall about once in twenty-four hours, according to whether it is hot weather or cold weather; the bars commence showing bigger; apparently as though the ebb and flow of the water or rise and fall of the water, during the cold nights and hot days, as the water goes down, leaves a sand there.

2. I will ask you whether there is not a considerable difference in the velocity of the water opposite your place during the two parts of the twenty-four hours?

A. Do you mean when the snow is melting?

2. Yes. A. When the water is at the highest stage it appears to run faster than when it is going down.

2. That is not what I asked you; but whether you do not have two classes of water there, as to height, during the



twenty-four hours?

A. Well, I do not know that we do. I never noticed it enough to hardly tell

Q. What do mean by the water that comes from the melting of the snow in the day time? is not that a greater volume of water than the water that comes down in the night time

A. I think the water that comes down when the river is up high, runs considerably faster than when it is at a lower stage. That's what I mean. It is

Q. ~~Is it as high as the lake~~ ~~are like this~~: that the river will commence rising in the morning or some hour in the day, and it will rise and fall in the twenty four hours perhaps two feet; it depends a good deal on how hot the weather is and how cold the night is; that is what I mean. That is what I wish to be understood.



Q. The American river heads in the Snowy Kermas does it not?  
A. - Yes.

Q. What do you say is the difference between these two stages of water in the twenty-four hours?  
A. I think sometimes it is two feet more or less according to the weather.

Q. In the twenty-four hours?

A. Yes.

Q. How long does the American river continue high each spring as a general thing?

A. Some years later and some years not so late. Sometimes until about the 1<sup>st</sup> of June; and I have known it to keep up until in July. That is, not high; but it would not get to its lower stage; it would keep rising and falling.

Q. That is caused by the melting of the snow is it not?

A. Yes, I suppose it is.

Q. What has been the character of the water out there opposite your place during the last ten



years? A. It has been very Muddy  
 Q. How very muddy?

A. I could hardly tell you

Q. That is what we want  
 you to do? A. It looks  
 like as though there was a  
 good deal of sediment, sand  
 or something in it.

Q. Suppose you take it up  
 when it is high, at the top and  
 the bottom, how much could  
 you get of either sand or  
 sediment? A. In how much  
 water

Q. Oh! say a bucket of water

A. Oh! I do not know. There  
 is quite a covering of it. There  
 might be  $\frac{1}{16}$  of an inch thick  
 perhaps. I do not know.

Q. What is the water fit for?

A. I do not know what it  
 is fit for

Q. Will stock drink it?

A. A person could drink it.  
 They would not like to if they  
 could get any better

Q. Will stock drink it, is  
 the question?



A. Yes stock will drink it  
 Q. When it is muddy?

A. Yes, drink it any time

Q. Now when it gets to a  
 comparatively low stage, how?  
 Will stock drink it then?

A. Yes, stock will drink it then

Q. How will it be for family  
 use?

A. It would not be  
 very good I should judge. I  
 never had occasion to use it

Q. How far do you live from  
 the river?

A. About  $\frac{1}{3}$   
 of a mile

Q. You say you have been there  
 continuously since 1853?

A. Yes, that has been my  
 home since 1853

Q. How much of your land  
 has been covered there; how  
 much of it overflowed?

A. Oh! I do not know.  
 Probably in 1861-2 there were  
 50 acres of it overflowed.  
 Last spring there was not  
 so much

Q. How high were the banks  
 there in 1853 when you went



there? A. Well they were different heights at different places. There were places where they were forty feet high and at other places they were not over twenty. The banks are very irregular along there.

Q. Did you notice any change in the water level out there?

A. I have noticed that where there were riffles when I went there, there are not any now.

Q. But I mean in the water level? For instance, in digging a well, whether you strike water at a greater or lesser distance than you used to in 1853?

A. Well, I do not think you have to go so deep before you strike water. I think there is probably from five to twelve feet difference.

Q. Higher or lower?

A. A difference in the place where you would dig might make probably a difference in when you would strike water.



When I first went there they went forty feet for water.

Q. How long does it take the American river to come down after a heavy rain; to come down booming as they say?

A. In heavy rain?

Q. After a heavy rain?

A. I do not know. If it comes rain very heavily to day it would come down pretty heavy tomorrow.

Q. How rapidly would it come down tomorrow?

A. That I could not tell.

Q. Have you ever seen it during its flood stages?

A. Yes,

Q. How did it run?

A. It ran very rapidly.

Q. How rapidly?

A. I never knew how fast it did run.

Q. Have you seen it come down in waves?

A. Well, I can not say that I have.

Q. Have you ever Examined



to see what kind of flow of sand there was on the bottom during late years?

A. No, I believe not

Q. You do not know anything about that? A. No.

Q. Have you ever been up to any of these hydraulic mines on the American river?

A. No sir I have not

Q. What kind of material was this gravel that you spoke of? What was it composed of?

A. Little stones

Q. What colors?

A. They were different colors, some were grey, some white quartz pebbles, and some bluish

Q. These would be quartz would there? A. Some white quartz

Q. What is the difference in the depth of the water at your place now and when you first went there, when you first saw it?

A. Well in places there is



ten feet difference in some places there is not so much

Q. How did the river run as to banks when you first went there? was it narrow or broad? A. Well, not very wide.

Q. Did it reach to the foot of the bank on either side?

A. Well, I guess it did as far as I remember

Q. Did you ever observe these large salmon going up this stream

A. Yes,

Q. When? A. Well previous to the flood of 1861-2. I do not remember seeing any since. I might though

Q. In what quantities did you see them and where were they going? A. They were going up stream apparently. all I could see was one come on top of water once in a while and then disappear. I could see them very frequently by standing and looking in the river; Every few minutes some time.

Q. Large fish? A. Salmon



Q. What size? A. Well I should say they would weigh fifteen or twenty perhaps thirty pounds, I do not know how big they were.

Q. You say you have seen none since 1862? A. I do not know that I have; I might

Q. Were you in the habit of seeing them every year before 1862?

A. I used to.

Q. You do not know whether they had spawning grounds or not at the head of the river?

A. I do not know where they went to.

Q. Did you see any when you were at Oregon bar? A. No.

Q. What season of the year would you generally see them going up stream at your place?

A. I think, in the spring of the year.

Q. And when you were at Oregon Bar, I say in the fall of the year? A. Yes.

Q. Do you know what the habits of that fish are?

A. No. —



# Cross Examination

2324

Mr Catlin - Q. When you were mining an Oregon bar, that was in August '49 was it?

A. August and September

Q. How many miners were there mining the same way that you were mining at that time?

A. When I went there, there were three besides our Company. When I left there, there were about one hundred

Q. When you left there were about one hundred miners? A. I think so.

Q. And they were mining in the manner that you have described about two men to a rocker?

A. Yes.

Q. Do you know how long they continued after you left, from any knowledge of your own to mine there an Oregon bar?



Q. No I do not. I suppose though until the rains drove them out.

Q. Do you know whether they continued to mine there the following year?

A. There were some there in the spring - up about May - after that, I never saw them afterwards.

Q. Has there any mining been done on your land on the American River, where you reside, fourteen miles from the city? A. Yes.

Q. What was the name of the diggings?

A. They were called Garner's Diggings.

Q. How far did that extend up and down up along the bank of the river?

A. The principal part of the diggings were not exactly on the bank of the river. They were along the edge of the bar.



Q. I am speaking now of that which was on the bank of the river?

A. There was probably about 40 rods on the bank of the river.

Q. That was a bluff bank, where the bank was very bluff, was it not?

A. Yes.

Q. How far up and down the river did that mining extend or what was called Farmers Diggings?

A. I say about 40 rods.

Q. How far down the river did the whole of the mining extend, I ask you?

A. About 40 rods on the river bank,

Q. No farther?

A. Not on the bank, on the bar it did.

Q. How far up and down the American River



on the south side of that river, did it extend?

A. I will explain if you will give me a chance.

Q. Answer my question and explain afterwards

A. You asked me how far it was on the bank of the river and I told you that the principal mines were not exactly located on the bank of the river, and you wanted to know how much was on the bank of the river

Q. I know what I asked you. Do you know the extent of Farmers diggings A. Yes.

Q. How was that mining carried on by what water.

A. By water from the Natoma Ditch Company.

Q. Was there a branch canal brought down from the main ditch to supply those mines A. Yes

Q. When was that?

A. I think it was in '37,

Q. How long did that



mining continue.

A. It continued up to 1864 or '65.

Q. Over what extent of ground up and down the river did it extend?

A. It extended directly up and down the river bar forty rods, and then it turned off on the bar probably forty or fifty rods more.

Q. How far was it from the extreme upper part of that mining to the extreme lower part? To what extent?

A. Probably a little over a quarter of a mile.

Q. Was it not a mile?

A. No.

Q. Does not that mining extend in places - I am not inquiring now about just where it stopped off, but the extent of those Hammers Digging - about a mile up and down the river?



A. No

Q. Did not? A. No.

Q. How far back from the original bank of the river is the soil washed off down to the bed rock in some places?

A. Well it has washed off bar some distance. But the bar that of it I don't think is over forty or fifty rods.

Q. To what depth?

A. It is all the way from a foot to twelve or fourteen feet deep.

Q. Is there not some of it 20 feet deep?

A. I think not.

Q. Now you say there was a bar there. Describe that bar. Was that on your land?

A. That bar is a place that high water went through.

Q. What?

2298 A. The bar is off the river where in high water



The water ran through, and the mining grounds opposite the bar lay off up above it on a little slope.

Q. Is that bar on your land. A. Yes.

Q. Is that the bar you speak of where the gravel has been deposited?

A. Yes. There has been gravel on that bar.

Q. Is that the bar that you speak of where the gravel was deposited that you speak of the size of a hen's egg?

A. Well, at that place? And this place I call a kind of a slough that runs through the place.

Q. There is a bar there and a slough?

A. Low ground. You could not exactly call it a slough. But it is a low place in the bank.

Q. Through which the water passes around when



The water is high?

A. When the river is very high,

Q. Leaving a sort of island there? A. No, it does not leave any island. Oh, yes, you might call it an island at high water.

Q. And it is in this low place that this gravel is deposited? A. Yes,

Q. Has there ever been any debris, sand or sediment deposited on any of the land that you ever cultivated since you went there in 1853?

A. There has been a little in a small orchard at the east end of my place.

Q. How much? A. Oh very little. Well there is a good deal of sand there.

Q. How much do you mean?

A. There are about or five acres that there is sand on.

Q. When did that sand come on there. A. It came on in 1862.



Q. Did you have an orchard there then? A. I did.

Q. How deep is it deposited over how or how acres of that orchard?

A. About a foot.

Q. Did you continue to cultivate the orchard afterwards?

A. I cultivated it then and I cultivate it at present.

Q. You have continued to do so up to the present time?

A. Yes.

Q. Is that a low place where this orchard is? A. No, it is a pretty high place.

Q. Is it as high as the balance of the great body of your land there?

A. Well it is as high as the most of it. It is as high as most of my bottom land.

Q. What is the difference between your bottom land and your other land? Describe your land?

A. Well my other land, where I farm, is what we call along



there the second bench, It is probably I should judge twelve or fifteen feet higher than what we call the bottom land.

Q. Have you ever cultivated that bottom land?

A. No. Only this small piece that I spoke of.

Q. You never made any attempts to cultivate it at any time. A. No, never. Some of it had been cultivated before I owned it.

Q. You first owned it when in '53?

A. I did not own that part in 1853.

Q. Who was that cultivated by. A. Men by the name of Rice and Jennings.

Q. Saw on this lower bar

A. Yes.

Q. What was that cultivated to? What was the product?

A. There was wheat and barley in it. A man by the name of Doyle Cultivated



it I believe the last time.

Q. When was that

A. That was in '57.

Q. Has that been covered with any debris?

A. Not that part of it.

Q. Do you know of any raise in the water level say where your house is?

A. What?

Q. Is there any raise in the water level in the ground where your house is?

A. Not that I know of any more than by digging wells.

Q. But if you know it by digging wells, you know it. I ask you is there any raise there?

A. We do not have to dig as deep for water as I did when I first located there.

Q. Just state the difference now from actual experience of your own.

A. Well I should think there was several feet difference in striking water.



Q. You should think there was several feet. Do you know it?

A. I know the last well I dug I struck water at twenty seven feet. Previous to that I went thirty odd feet before I struck water.

Q. In the same place. A. No. A road was between the two places.

Mr Cadwalader - You say a road was between the two places. A. A road. The two places were one hundred feet apart maybe two hundred feet.

Mr Catlin. Two hundred feet apart and at one place you struck water at twenty seven feet and in the other at about thirty feet. A. It was over thirty feet. I do not know how much. Thirty two or thirty three feet probably.

Q. How far is that from the river? A. About one third of a mile.

The Curb. Are both wells



still there?

A. No Sir. One is killed up,  
Mr Batini - The old one is killed  
 up. A. Yes,

The Cauch - which was the  
 lowest place, which well?

A. I do not think there was  
~~six~~ inches in the ground, The  
 ground is just about alike.

Mr Callin. Q. Before the water  
 became muddied by the blood  
 of 1861-2 did you use the  
 water of the American River  
 for domestic purposes. A. No.

Q. You would not use it  
 for that purpose now would  
 you? If there was no mud  
 in it? A. No.

Q. You said you saw quartz  
 pebbles in those ripples where  
 the water ran through there,  
 did I understand you  
 correctly?

A. I saw quartz pebbles  
 dash, yes Sir

Q. I will ask you whether  
 there are not quartz pebbles  
 2305 - in the old original tail



down through farmers diggings?

A. Yes, there are,

Q. They are quite noticeable there are they not,

A. Yes. You can see them,

Q. What kind of soil was that, that was washed in Farmers Digging? Was it the red soil or gray sandy soil?

A. A gray sandy soil, some of it was kind of dark

Q. Considerable gravel in it was there not

A. Yes; a good deal,

Q. That soil, if subjected to the action of the water in washing it, would it not produce gray sand, A. Yes,

Q. How many different sluices were at work on Farmers Digging?

A. I do not know exactly,

Q. State as near as you can

A. I do not think there were ever probably more than seven to ten at any one time,



Q. Do you know what sized heads of water they used?

A. About twenty five inches, sometimes more and sometimes not so much, just as we could get it. If we got twenty five inches we thought we were getting along pretty well.

Q. Where did the tailings go to from those claims?

A. They went down on the bar and in the river.

Q. In '61 and '62 your low ground was overflowed to the extent of about fifty acres? That is, the water came over it if I understood you?

A. I suppose there was that much under water while the river was up.

Q. What? A. Probably in 1862 there was that much under the water when it was up.

Q. Was any of it up on what you call the second bench? A. No,



Q. This was on the bar?

A. On the bar, And this low place I speak of above the bar.

Q. This fifty acres includes the bar and this low place?

A. Yes.

Q. It did not overflow the bank of the river where this forty rods of mining was done did it then

A. No

Q. Now, standing on the bank of the river there at the present time - at the bluff bank on this side - about how deep is it down to the water

A. I should judge it was about 30 feet now.

Q. Has there not a bar on the opposite side of the river from your land? A. Yes

Q. What is the name of that bar? A. They called it Sacramento Bar when mining was going on there

Q. That was a low bar was it not? A. Yes.

Q. What was the condition of that bar when you first



saw it in regard to its general appearance.

Q. There was cobble and brush and one thing and another and some grass growing on it, and a kind of soil.

Q. A mild growth such as grows on banks of that character? A. Yes. Something similar to that.

Q. Cobble stones? A. Yes.

Q. Gravel? A. Yes.

Q. Sand. A. There was not much sand there.

Q. Were you ever on it to see. A. I was.

Q. What was the extent of that bar.

A. It is a large bar. I do not know how large it is.

Q. Has it not usually overflowed when the American River was high?

A. Yes. It was overflowed in '61-2.

Q. Has it not in other floods? I am not speaking of the big



blood of 1861-2; but did not  
that bar overflow considerably  
at other floods

A. I presume it did; I never  
saw it overflow though. But  
I have every reason to sup-  
pose it did in 1851-2

Q. When was the mining  
carried on there

A. About the same time  
it was on one side.

Q. What water did they use?

A. They pumped water with  
an engine

Q. Was there not a branch  
ditch extended down there  
from the north fork?

A. I think there was after  
it was running. I do not  
think it was ever used though  
to any considerable extent,  
it was soon played out.

Q. Rubbalo Creek comes in  
right at your place does  
it not.

A. It comes in right at the  
east end of my place

Q. At the upper end?



A. Yes between me and the next place above.

Q. Your upper bar on the river is up where Buffalo Creek comes in A. Yes.

Q. State whether creek discharges a large amount of water during the rainy periods?

A. A good deal comes down it.





Q Does not it indicate - does not it appear there as though that bar on the other side was formed in the river by the bend in the river and by Buffalo Creek discharging at that point?

A Yes. No Sir, I think not.

Q. Buffalo Creek discharges right opposite that bar?

A. It comes in right opposite. Most of the bar is above the mouth of Buffalo Creek. It runs up and along West above the mouth.

Q Which bar?

A. The Sacramento bar.

Q. On the opposite side?

A. On the opposite side.

Q. Look at that map Mr Taylor (Refer to a map of the American river and of the Tahoma Water and Mining Companies

Circulars) I will ask you whether that map correctly describes the American



river at that point and  
 farmyard diggins diggins  
 and Sacramento bar  
 and the Colusa road and  
 the situation of your house

A. That looks about  
 right to me as far as  
 I know

Q Does that map  
 show the location of your  
 house? Marked the 14  
 mile house

A. I think it has  
 got the location about  
 right

Wm Colfax I shall want  
 to use that map as a  
 diagram in connect-  
 ion with the testimony of  
 other witnesses and I will  
 have it described by  
 the Reporter, by the name  
 it bears. The map refer-  
 -ed to is described as  
 being a map of the  
 American river and  
 the Natoma water and  
 mining Companies' Canal



made by A. T. Arrow-  
 Smith a Civil Engineer.  
Mr Hark You are not af-  
 firming that in the evidence  
Mr Callin. I want to use  
 it as a diagram. I will  
 introduce the map in  
 evidence and will  
 prove it to be correct.  
Mr Hart - You have  
 no right to introduce  
 testimony until we  
 get through.  
The Court - You can  
 put in the diagram if  
 you want to.

Mr Hark - As testimony  
The Court Certainly.  
Mr Hark. I object to  
 the introduction of any  
 testimony by Mr Callin  
 while the witness is on the  
 stand & ~~testifies~~ testifies.  
 And I also object to the  
 introduction of any testi-  
 mony by Mr Callin or  
 by any person connected  
 with the defense until the



plaintiff has furnished its  
case.

The Court overruled  
the objection and ven-  
ued for the plaintiff ex-  
cepted.

Mr. Callin - It is offered  
as a diagram in con-  
nection with the testi-  
mony of the witness & ex-  
plained and make more  
clear to the Court the matters  
about which he has testified  
both on the direct and  
the cross examination.

Mr. Callin - Now I  
will ask you this: there  
is a place in the American  
river in your vicinity - on  
your land that is filled  
up as much as ten feet  
deep?

A. I say the river has  
filled up. I said I  
thought the river bed  
had filled up. About ten  
feet.

Q And in some places



not so much.

A. No Sir.

Q. State the depth that you think it has filled up at the point where there are riffs.

A. Well perhaps not to exceed a foot where those riffs were.

Re-direct Examination

John D. Taylor,

Mr Cadwalader. Describe to the Court the manner in which the miners worked at Furness diggings and what kind of implements they had.

A. Well they used Shovels exclusively those the white men. There were some Chinamen who used rocks. The water was very scarce and we had to divide it up among us



as near as we could and  
we had to shovel the  
dirt into the sluices and  
put a man on the sluice  
box with a sluice fork  
to throw the big rocks  
out, and the gravel  
and stuff that water wash-  
ed out.

So that none of the  
~~get~~ stuff came into the  
river at all.

Mr. Leis.

Mr. Callan - Is not your  
and said he saw  
stuff? I object to your  
stating that.

Mr. Cadwalader -  
Amos - Examining  
him.

The Court Mr. You  
are not cross-examining  
him, this is correct.

Mr. Cadwalader - When  
was the bulk of this  
mining done.

A It was done in  
1857-1858 and 1859.



What part of it has been  
done since 1862.

A. There has been  
very little. - Some di-  
rectly on the banks  
of the river.

Q. How has that  
been done.

A. That was done  
by sluicing and  
piping.

Q. What do you  
call piping.

A. Where they con-  
vey the water through  
a hose and hold  
it against the bank.

Q. What kind of a  
hose is it carried  
through.

A. A common  
drilling hose made  
out of duck - heavy  
duck made about  
four or five inches in  
diameter.

Q. How near did  
the bed rock in those



diggins come to the surface.

Q. It came within about four ten or fifteen feet.

Q. How much ground was mined out?

A. Well, there was about, probably, 20 or 25 acres in all.

Q. What proportion of that would be of these Cobble - ~~is~~ <sup>are</sup> that did not go into the river?

A. Well - I could hardly tell you. I could not hardly answer that question. The cobbles were generally thrown out on these drop cuts where there were many of them they were thrown out of the sluices and piled up - Walled up. They stand there yet, most of them - those that have not been hauled away and some of



them went into the river  
the smaller ones, the  
big ones are those gener-  
ally.

Q. Would it be an  
easy matter to measure  
the amount of earth  
that has been taken  
out there?

A. Yes.

Q. Would not that  
show for itself to an  
engineer?

A. I presume it  
would.

Q. You say the bulk  
of it was all done before  
1862.

A. Yes.

Q. Was this red  
earth?

A. No, Sir; it is  
a kind of dark earth  
and gravel - sandy  
soil.

Q. So there are any of  
the land that came out  
of Harrow Aqueduct lying



abreast of the place  
where it was deposited  
Q. Not that I know  
of. I do not think there  
is.

Q. Where has it gone  
to?

A. It has all  
gone down  
the river, I presume.

Q. It has all gone  
down the river,

A. Yes.

Q. When did it dis-  
appear, the bulk of it?

A. The bulk of it  
disappeared in '1862.

Q. You say that  
water was very scarce  
when they were mining  
there.

A. Yes.

Q. How large a  
head did you have  
to mine with.

A. I do not know.

Q. Did you have any?

A. Heads of water?

Q. Yes.



A. Yes. we might have run six or seven or eight or nine or ten, that was the most we ever ran at any one time.

Q. Did you have sluice-boxes?

A. Yes.

Q. How wide were your sluice-boxes and how deep?

A. The sluice boxes were about 12 inches wide and about 10 inches deep - from ten to 12.

Q. How long would your sluices be?

A. Well some times they would be 100 feet long and from that up to 200.

Q. The water came in a ditch did it not?

A. Yes.

Q. The ditch was right from the surface on which you were mining



A. Yes.

Q. And you had no head at all to carry off the surface earth?

A. Well there was a head to carry it off or some portions of it that were worked toward the east.

Q. What was the grade of the Natom a ditch for a mile?

A. The grade of the ditch.

Q. Yes. Before it reached the river.

A. I do not know, it was very little.

Q. How much would it be?

A. I do not remember what the grade was of the ditch.

Q. But after it got down into the Valley after it got across the Calloway road how much of a grade did it have?



Say to the mule.

A. Well I do not know  
I think I had about half  
an inch to the w. I am  
not certain though, I  
be. I was not so much  
I know I was very little.

Q. When did the ditch  
close conveying water to  
those diggings.

A. I do not remember  
exactly - about 1864 or 1865  
I think.

Q. Now you were  
asked about the Sacra-  
ment bar. That you say  
was nearly opposite.

A. Yes.

Q. When did mining  
commence to be carried on  
there.

A. I think it com-  
menced there in 1857,  
probably not until 1858.

Q. What kind of mining  
was done there as com-  
pared with the mining  
that you done up on Oregon



b or.

A. Well they raised up a head of water with an engine and sluiced their dirt with a short string of sluices and afterwards there was a ditch brought up. I do not know how soon afterwards. They used that afterwards for a little while, to sluice with but they abandoned the whole thing in a very short time.

Q. When was that all over?

A. I do not know exactly the year. It was about 1857 or 1860 when they quit there.

Q. When did that stuff disappear down the stream that was put in there?

A. I do not know.

Q. Was it previous to 1862?

A. I could not tell anything about it.

Q. Was not that mining?



Simply a disturbance of  
the original drift of the bar.

A. Oh! I do not know.  
It did not amount to much.

Q. How many men  
were at work there at any  
time.

A. I do not think there  
were over a dozen at  
any time over on that  
side of the river; probably  
not so many.

Q. How far did they  
work back from the river.

A. I do not know.

Q. You say this bar  
was not formed in your  
opinion by Buffalo Creek.

A. I do not think  
so. Sir.

Q. Is Buffalo Creek  
a natural water-course.

A. It is in the winter  
time - when it rains.

Q. But otherwise  
it is dry.

A. It is dry in the  
summer.



Q. What part of the year would it be dry and what part of the year would it be wet?

A. It would be wet when it rained and dry from May on until the rains commenced again.

Q. Did you ever wash any of this Farmer's digging stuff to see what the result would be - to see whether you would get grey sand or not.

A. Well I never examined it to ascertain what it was.

Mr Catlin - Mr Gaylor Can you say that none of that sand and gravel that was washed from Farmer's diggings does not lie now in the bed of the river at that place?

A. I expect it does.

Q. If that sand was all washed down some of it is there yet



A. I do not know, I expect it is, that is a question I could not answer Mr Cadwalader -

How much of a current has there been to your knowledge since 1862. During which this sand was deposited from Farmers dig-  
-ing?

A. How much of a current?

Q. Yes. Along the place where this stuff was deposited since 1862 or say from 1861 to this time The Court. You mean on the bar in the middle Mr Cadwalader -

A. Yes. I mean the place where this stuff was shot into the river.

A. There is not much of a current there in low water.

Q. In high water.

A. In high water there is quite a current.



when the river is high

Q. What was the current there in 1862,

A. How fast, you mean.

Q. Yes.

A. I do not know.

Q. What was it in 1881.

A. I do not know. It was faster than a man could run.

These the Court took a recess until tomorrow morning at nine thirty o'clock. A. J. P.



